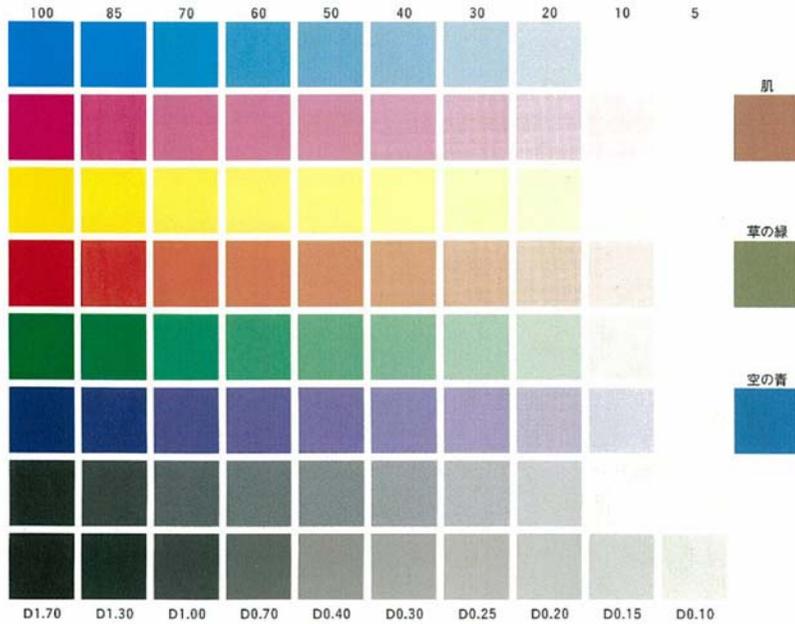


# Exploring Language Learner Strategies

Used by Japanese Lower Secondary School Students of EFL:

## A Synthesis of Quantitative and Qualitative Studies



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A Dissertation Submitted to  
The Graduate School of Foreign Language Education and Research,  
Kansai University

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Doctor of Philosophy in Foreign Language Education and Research

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by

YABUKOSHI, Tomoko

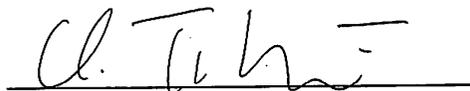
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## 論文要旨

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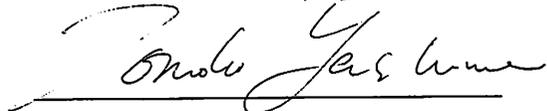
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The Graduate School of Foreign Language Education and Research  
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近年、日本の英語教育研究の分野では、言語学習方略（以下、方略）の指導に関心が寄せられており、特に中学生のような英語初習段階の学習者に方略を指導して、彼らを自律した学習者へと育てようとする考えが高まっている。しかし、中学生の方略使用を体系的に調査した研究は、現在までにほとんどされず、彼らが使用している方略の種類や使用方法、また英語力との関係などが明らかにされていない。また、第二言語方略研究の分野においても、従来の研究は成人の学習者を対象としたものが多く、小学生や中学生など年少者の方略使用に関する知見が少ないことが指摘されている。加えて、過去の方略研究は北米で実施されたものが多く、アジアの EFL 環境での調査が少ないことに対して懸念が高まっている。方略指導を実施するには、まず、対象者の方略使用を明らかにする必要があることから、本論文で筆者は「日本人 EFL 中学生の方略使用」を調査し、日本の EFL 環境下で彼らが使用している方略の種類や、方略使用と英語力との関係を詳細に記述している。

本論文は、次のような 8 章から構成されている。まず、第 1 章では本研究を実施するに至った背景として、上述の日本における英語教育研究や海外の方略研究の動向を概観し、本論文作成の動機を述べ、論文の構成について説明している。第 2 章では、第二言語方略研究全般に関する先行研究をまとめ、今後おこなうべき研究の方向性を明らかにしている。まず、方略研究の背景と方略の定義に関する先行研究を取り上げ、方略の定義が明確に定まっていないことを指摘している。続いて、方略の抽出と分類について概観したのち、方略使用に影響を与える主要な変数として、L2 能力と学習環境を取り上げている。L2 能力と方略使用の関係については、方略の使用頻度だけに焦点をあてて、量的に調査したものが多いため、方略の使用方法なども考慮に入れて質的に精査しなけ

ればいけないことを今後の課題としてあげている。さらに、学習環境との関係については、アジアの EFL 環境下での調査や、教室内・外別の調査があまりされていない現状を指摘している。本章の最後では、日本人 EFL 中学生を対象にした方略研究に焦点をあてて、これらの研究の問題点（例：中学生用の方略調査紙が開発されていないことや、質的研究が不十分であること）をあげ、中学生の方略使用や、彼らの方略使用と英語力との関係が明らかにされていないことも指摘している。

第 3 章は本研究のデザインに関する章で、この章では、本研究の目的、構成、参加者と彼らの学習環境、および本研究で扱う方略の定義をくわしく説明している。本研究の目的は、以下の 3 点である。

- 1) 日本の EFL 環境下で、中学生が教室内・外で使用している方略を抽出し、彼らの方略使用を測定するための信頼性・妥当性の高い質問紙を開発する。
- 2) 開発した質問紙をもちいて、中学生の方略使用傾向（種類と使用頻度）を調査し、彼らがどのように英語を学習しているのかを記述する。
- 3) 中学生の方略使用と英語力との関係を、量的・質的アプローチで調査し、英語能力テスト（*GTEC for STUDENTS*）で測定された英語力によって、方略使用がどのように異なるのかを明らかにする。

以上の目的を達成するために、4 つの実証研究がおこなわれた。研究対象の中学生は、近畿圏にある教育大学附属中学校の生徒で、他の中学校の生徒よりも比

較的英語力が高く、英語学習に対する意欲が全体的に高い生徒であった。帰国子女や家庭で日常的に英語を使用している生徒は、特殊な方略を使用している可能性があるため、研究対象から除外した。データ収集の際には、事前に学校から許可を得ており、生徒にもデータの秘匿性や成績に関与しないことを伝え、た上で調査を実施した。なお、方略の定義に関しては、主要な定義（Cohen, 1998; Oxford, 1990; Takeuchi, 2003b）を参考にして、本研究で扱う方略を「目標言語を学習したり使用したりする際に、学習者がとる方法や行動で、活動の遂行や言語学習が容易になったり、効果的になったり、効率的になったりする可能性のあるもので学習者によって意識化できるもの」と定義づけた。

第 4 章から第 7 章では、4 つの実証研究について述べている。第 4 章（Study 1）では、日本人 EFL 中学生に適した質問紙の開発に向けて、中学生が教室内・外で使用している方略を抽出し、教室内・外での方略使用傾向を調べた。データ収集として、自由記述式と多肢選択式を組み合わせさせた質問紙を中学生 347 名に実施し、教室内・外の各場面において普段使用している方略をスキル別に記録することを求めた。そして、これらの記述データを KJ 法（Kawakita, 1967）で分析した結果、中学生は、1) 単純な認知方略を多用しており、2) スキルによって、異なる認知方略を使用しているという傾向が確認された。さらに、3) 彼らは学習場面（教室内・外）によってスキル別の方略使用を切り替えており、この結果には教授法が関連している可能性があるということも判明した。

第 5 章（Study 2）では、前章の研究結果をもとにして、教室内・外別に方略使用を調査するための質問紙を作成し、中学生の方略使用傾向（方略の種類と使用頻度）を調査した。まず、Study 1 や中学生を対象とした先行研究（Hirano, 2000; Hojo, 1998）の結果をもとに、質問紙の項目候補（教室内 67 項目、教室外 75 項目）を選出し、予備調査を実施して、教室内 58 項目、教室外 66 項目の質問紙を作成した。次に、その質問紙を中学 2、3 年生 315 名に実施して、本調査

をおこなった。その結果、探索的因子分析をもちいて、教室内 5 因子 (28 項目)、教室外 5 因子 (31 項目) が抽出されたが、各下位尺度 (因子) の信頼度係数は十分高く、信頼性の高い尺度を得ることができた。また、確証的因子分析の結果、教室内・外の 5 因子モデルの適合度は十分に高く、質問紙の因子構成は妥当であることも確認された。以上の質問紙をもちいて、中学生の方略使用傾向を記述統計で調べたところ、1) 教室内・外両場面において、*Strategies for comprehension* (読解・聴解方略) や *Translation & simplification strategies* (訳や簡略化に関する方略) の使用頻度が高く、2) *Strategies for vocabulary & sentence memorization* (語彙や文の記憶方略) や *Strategies for speaking practice* (スピーキングの練習方略) は、学習場面 (教室内・外) によって使用頻度がやや異なっているということがわかった。また、3) *Strategies for retention while reading aloud* (音読に関する方略) は教室内において、*Follow-up learning & metacognitive strategies* (学習のフォローアップやメタ認知に関する方略) は教室外において使用される傾向も確認された。これを受けて筆者は、このような方略使用傾向には、日本の EFL 環境や、教授法、学習者の学習段階 (初習段階) などが影響しているのではないかとの考察を加えた。

第 6 章 (Study 3) では、方略使用と英語力の関係を、Study 2 で開発した質問紙と英語能力テスト (*GTEC for STUDENTS*) をもちいて、方略の使用頻度の観点から調査した。本研究への参加者は、Study 2 にも参加した中学 2、3 年生で、*GTEC for STUDENTS* を受験した 174 名である。相関分析と多変量分散分析 (MANOVA) をおこなった結果、本研究においては、方略の使用頻度と英語力の間に正の相関が確認されなかった。この結果に対して、近年の方略研究の主張をもとに、英語力に関係しているのは方略の使用頻度ではなく、方略の使用方法などではないかとの考察をおこなった。さらに、調査でもちいた道具 (質問紙と英語能力テスト) が結果に影響している可能性についても言及した。

前章にて、方略の使用頻度ではなく使用方法の重要性を主張したが、これを受けて、第 7 章 (Study 4) では、質的データを収集・分析し、質問紙調査ではみえなかった中学生の方略使用の詳細を明らかにして、方略使用と英語力の関係を精査した。分析の対象としたのは、*GTEC for STUDENTS* によって分けられた英語力の高いグループ (上位群) 10 名と低いグループ (下位群) 10 名が記録した英語学習日記で、教室内・外での方略使用について記述したものである。また、日記データを補足するために各群 4 名へ実施したインタビューや教師による授業記録もデータとして使用している。Grounded Theory (Strauss & Corbin 1998) にもとづく分析の結果、上位群と下位群は、1) 方略のレパートリー、2) 方略の使用法、3) 方略使用に関わる認識の 3 点において顕著な違いがあることが確認された。具体的には、上位群は下位群よりも、A) 方略のレパートリーが豊富で、B) 認知方略とメタ認知方略をうまく組み合わせしており、C) 方略使用の目的や普段の方略使用を認識できているということが判明した。以上の結果から、学習者の英語力には、方略のレパートリーや、方略の使用法、および方略使用に関わる認識などが関係している可能性が示唆された。

最終章では、以上 4 つの実証研究の結果をまとめた後、方略研究への示唆として、方略の定義や方略使用と英語力に関する新たな知見を提言している。また、開発した質問紙の活用法を述べ、教育に関する示唆も提案している。最後に、本研究の限界点として、参加者が教育大学附属中学校の生徒のみであったことや、Study 2 で開発した質問紙には、研究の前後関係から Study 4 で得られた知見が反映されていないこと、ならびに Study 4 の結果は量的検証が必要であることを指摘したのち、方略指導法の考案に向けて、研究を公立中学校などへ拡大することや、Study 4 の結果をもとに質問紙を改訂し、それをもちいて Study 4 の結果を量的に検証することなどを、今後の研究の方向性として提案している。

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## 1. Introduction

“Why are some learners more successful in language learning than others?” “How do they learn a second language (L2)<sup>1</sup>?” These are some of the fundamental questions that have been posed by second language acquisition (SLA) researchers, particularly those who are interested in good language learners (e.g., Graham, 1997; Griffiths, 2008; Reiss, 1985; Rubin, 1975; Stern 1975; Takeuchi, 2003a; among others). The author of this dissertation has also raised such questions as she has been teaching English at a lower secondary school (i.e., a junior high school) in Japan. Most of the students at the school, which is affiliated with a national university of education, are relatively motivated to learn English, and they seem to study English strenuously inside and outside the classroom. Their learning outcomes, however, vary significantly from one student to another. This fact has intrigued the author to question how they approach English language learning and how they can learn the target language (TL) more effectively, which serves as a starting point of the present doctoral dissertation.

As was noted above, the variability in the degree of success among language learners has been one of the primary concerns of SLA researchers. In a bid to clarify the factors that cause such variability, researchers have shifted their attention from teachers to learners, and the use of language learner strategies (LLSs)<sup>2</sup> has begun to be investigated. Since then, a considerable number of LLS studies have been carried out, and LLS use has been acknowledged to be one of the important factors which plays a vital role in L2 learning (Ehrman, Leaver, & Oxford, 2003; Ellis, 1994; Larsen-Freeman & Long, 1991; Skehan, 1989).<sup>3</sup> Consequently, it is claimed that teachers should pay attention to their students’ use of LLSs more closely (e.g., Gu, 2005; Mills, Pajares, & Herron, 2007; Naiman, Fröhlich, Stern, & Todesco, 1978; Wenden, 1985).

In Japan, on the other hand, the exploration of better English teaching methods has been focused on in the field of English education research at the secondary school level, and little attention has been paid to learners' use of LLSs. For instance, *Eigo Kyoiku* [The English Teachers' Magazine], one of the most prestigious magazines for English as a Foreign Language (EFL) education in Japan, has provided a wealth of research on classroom practices and teaching methods for Japanese EFL learners at the secondary school level, but it has included relatively few studies that investigated these learners' strategy use.<sup>4</sup> Moreover, as was pointed out by Ozeki, Yamato, Nakajima, and Hiromori (2005), English language education policy, as presented in *Course of Study* and in *An Action Plan to Cultivate Japanese with English Ability* issued by the Japanese Ministry of Education, Culture, Sports, Science, and Technology (1998, 2003, 2006), only described the objectives of English language education, the linguistic elements of English language which should be taught to students, and the contents of language activities which should be incorporated in English classes. In other words, the policy has just addressed "what to teach" and "how to teach" from teachers' viewpoints. "How to learn English" through the eyes of language learners and teaching them "how to learn" English have long been neglected.

Under the aforementioned circumstances, the importance of teaching "how to learn English" to Japanese secondary school students of EFL, particularly at the lower secondary school level, has begun to be advocated by some researchers with a hope of leading the students to autonomous EFL learners in the future (e.g., Hiroyama, 2002; Ozeki et al., 2005; Sakamoto & Nagase, 1987). Teaching effective ways of L2 learning has been practiced as strategy instruction in the field of LLS research. To implement successful strategy instruction to Japanese EFL students at the lower secondary school level, we first need to know two things: 1) how they learn EFL; and 2) how their

approach relates to their learning outcomes (Gu, 2005). However, due to a scarcity of systematic LLS studies with Japanese lower secondary school students of EFL, their strategy use and its relationship with learning outcomes have yet to be clarified (see 2.4 for a comprehensive review). This lack of research-based knowledge has inhibited successful strategy instruction to these students.

Turning to the recent trends in LLS research, investigation into strategy use by younger learners, such as learners at the elementary and lower secondary school levels, has been called for since previous studies in this research field were conducted mainly with adult language learners at the tertiary-level, and younger learners' strategy use has not been fully revealed yet (Lan & Oxford, 2003; Nyikos & Fan, 2007). Another trend concerns the strategy use in terms of learning contexts. Compared with dozens of LLS studies administered in North America, fewer LLS studies exist in Asian EFL contexts. Due consideration should thus be given to carrying out research in these contexts (Gan, Humphreys, & Hamp-Lyons, 2004; Gu, 2005; Takeuchi, 2003b). In light of such current trends in LLS research, it seems worthwhile to examine the LLSs used by learners at the lower secondary school level in Asian, particularly the Japanese, EFL context.

Regarding the data collection methods in the field of LLS research, questionnaires have been employed most often among various methods (i.e., classroom observations, think-aloud, interviews, diaries, portfolios).<sup>5</sup> A large number of LLS studies have utilized one standardized questionnaire, that is, the *Strategy Inventory for Language Learning* (the *SILL* by Oxford, 1990), to statistically investigate the patterns of strategy use. Although the *SILL* has been developed to be applicable both in SL and in FL settings, its validity for assessing learners' strategy use across different cultural groups has been questioned (LoCastro, 1994; Takeuchi & Wakamoto, 2001; Yamamori,

Isoda, Hiromori, & Oxford, 2003; among others). Moreover, although the *SILL* has been often employed with adult learners, the use of the *SILL* with younger learners has not been validated yet. Consequently, the construction of a strategy questionnaire appropriate for a particular group of learners (e.g., Japanese EFL learners at the lower secondary school level) has been called for (Hojo, 1998; Yukina, 2000).

With this background in mind, this dissertation, consisting of eight chapters, is an attempt to: 1) develop a questionnaire to assess the strategy use of Japanese lower secondary school students of EFL; 2) examine how they learn English inside and outside the classroom in the Japanese EFL context by focusing on the LLSs employed by these students; and 3) explore how their strategy use is tied to their learning outcomes, as reflected in their EFL proficiency. In Chapter 1, the author sets the scene for conducting the present research and introduces the organization of the dissertation. Chapter 2 presents the literature review relevant to LLS research. It begins by introducing the conceptual background of LLS research, and describes the identification and the classification systems of LLSs. Variables affecting LLS use (i.e., L2 proficiency and learning contexts)<sup>6</sup> are then described. The chapter ends with a review of previous LLS studies conducted with Japanese lower secondary school students of EFL. Chapter 3 describes the author's *research design for the four* empirical studies that are the basis of this dissertation. This chapter presents the aims, organization, and participants and their learning settings of the studies. The operational definition of LLSs for the present studies is also stated in this chapter. The ensuing four chapters report on each of these empirical studies. Chapter 4 describes a study devoted to eliciting various LLSs used by Japanese students learning EFL at a lower secondary school in two settings (i.e., inside and outside the classroom) and to describing the patterns of their strategy use in relation to these two settings in order to

create an item pool for the strategy questionnaire. Chapter 5 deals with a study of constructing a valid and reliable strategy questionnaire based on the item pool and of profiling the students' use of LLSs inside and outside the classroom. Employing the questionnaire developed above, Chapter 6 quantitatively investigates the linkage between strategy use and English proficiency to ascertain whether there is a positive relation between these two variables. Turning to the details of strategy use, Chapter 7 examines the students' use of LLSs in detail and attempts to unveil the differences in strategy use between learners with higher English proficiency and those with lower proficiency by analyzing qualitative data (i.e., diaries and interviews). The last chapter, Chapter 8, concludes the dissertation by summarizing the major findings of these four empirical studies and by discussing implications as well as the directions future research could take. Appendices, including the materials used for data collection, are provided at the end of the dissertation.

## Notes

1. In this dissertation, L2 or target language (TL) is used interchangeably to indicate the language other than first language (L1) being studied by learners. Moreover, the terms such as second language (SL) and foreign language (FL) are also used, if necessary. The former refers to the TL being studied in either formal or informal settings in the countries where the language is spoken as an official or a national language, and the latter refers to the TL being studied in and outside the classroom settings in the countries where the language is not spoken as an official or a national language.
2. Although strategies have been called *language learning strategies* or *learner strategies* in the field of strategy research, the term *language learner strategies* has

come into wide use among LLS researchers recently (Cohen & Macro, 2007).

3. Besides the use of LLSs, there exist the following factors which have an impact on L2 learning process: age, aptitude, motivation and attitudes, personality, cognitive style, hemisphere specialization, gender differences, prior language learning experiences, and so forth (Larsen-Freeman & Long, 1991). More recently, Ehrman, Leaver, and Oxford (2003) have reviewed the factors by classifying them broadly under the following three areas: 1) learning styles; 2) learning strategies; and 3) affective variables. They have argued that these areas are not separable, but rather inter-related with each other.
4. The magazine was first launched in 1952. Since then, it has featured the issues concerning LLSs only six times: *Watashino Eigo Benkyohou* [My English LLSs] in the December issue in 1978; *Dekinai Seitoha Benkyono Shikataga Wakaranai* [Unsuccessful Learners do not Know How to Study English] in the June issue in 1983; *Seitoni Susumetai Koukatekina Eigo Gakushuhou* [English LLSs Recommended for Students] in the April issue in 1995; *Eigo Experttachino Gakushuhou* [LLSs Used by Experts in English] in the November issue in 2001; *Gakushu Strategywo Jogyomi* [Implementing Strategy Instruction in English Class] in the October issue in 2004; and *Watashino Eigo Gakushuhou* [My English LLSs] in the March issue in 2007. None of the articles in these issues, however, elaborated on the LLSs actually utilized by secondary school learners.
5. For an overview of various data collection methods, see Cohen (1998), Ikeda (2004), and Takeuchi (1991).
6. There are several variables (e.g., age, gender, learning styles, and motivation) which are considered to affect the learners' use of LLSs. Among them, these two variables (i.e., L2 proficiency and learning contexts) are focused on in this

dissertation since they seem to be significant for the study of Japanese FL learners' strategy use (Takeuchi, 2003b), and the links between strategy use and these two variables have yet to be ascertained in the previous LLS studies (see 2.3.1 and 2.3.2 for a comprehensive review).

## 2. Literature Review

This chapter introduces some of the previous research on LLSs to establish a framework for describing the empirical studies presented in the ensuing chapters. Since the good language learner's studies by Rubin (1975) and Stern (1975), two types of studies have been conducted in this research field: descriptive studies and intervention studies. The former studies are related to the identification and the classification of LLSs used by L2 learners and to the investigation of variables affecting their strategy use. The latter are concerned with strategy instruction. Focusing on the descriptive studies on LLSs,<sup>1</sup> this chapter provides an overview of LLS studies in terms of: 1) the conceptual background of LLSs; 2) the identification and the classification of LLSs; and 3) variables affecting learners' strategy use, especially L2 proficiency and learning contexts. Lastly, 4) previous LLS studies conducted with Japanese EFL learners at the lower secondary school level are reviewed since these learners are the author's main focus and their strategy use is to be investigated and described in the later chapters.

### 2.1 Conceptual Background of LLSs

The initial impetus for LLS research came from concerns as to the degree of success in language learning which varies significantly *from one learner to another*. The individual learner's approach to his/her L2 learning then increasingly attracted the attention of some SLA researchers, which paved the way for the birth of LLS research.

The advent of LLS research traces back to the good language learner's studies by Rubin (1975) and Stern (1975). They investigated LLSs used by successful language learners since they thought that if they knew successful learners' LLSs, they might be able to teach these LLSs to less successful learners and to help the less successful learn an L2 effectively. Since the good language learner's studies, a large

number of studies have been conducted, and the significance of LLS research has been acknowledged in the field of SLA (e.g., Chamot, 2004; Ellis, 1994; Grenfell & Macaro, 2007; Oxford, 1994; Skehan, 1989). For instance, Skehan (1989, p. 9) highly valued the "controllable" aspect of LLSs compared with other learner variables (i.e., language aptitude, motivation) and mentioned that "since the 1970s, research into consciously controllable learner strategies has grown considerably, offering as it does the prospect that we can teach learners how to learn." According to Ellis (1994, p. 529), the learners' use of LLSs has an impact on two aspects of learning: "the rate of acquisition and the ultimate level of achievement." More recently, based on their extensive review of previous LLS studies for over the three decades, Grenfell and Macaro (2007, p. 27) have summarized the significance of LLS research as follows: "strategies are important because they are associated with successful learning," and "strategies can be taught and learners, as a result, can develop more effective strategic behavior."

While the significance of LLS research has been advocated by many researchers and a number of LLS studies have grappled with the exploration of learners' strategy use, there was a lack of consensus on what LLSs are. Table 2-1 is a summary of LLS definitions made by several researchers. As shown in the table, the definitions of LLSs are varied in terms of researchers' main interests and/or underlying theoretical backgrounds (Macaro, 2001). For example, Naiman et al. (1978, p. 4) separated *strategies* from *techniques* and referred to *strategies* as "general, more or less deliberate approaches to learning." Rubin (1975, p. 43), on the other hand, defined LLSs as "techniques or devices which a learner may use to acquire knowledge." The definition proposed by Rubin has become more wide spread than that by Naiman et al. Furthermore, "mental operations" and "strategic knowledge" were included in the definition of LLSs proposed by Cohen (1984, p. 110) and Wenden (1987, pp. 6-7),

respectively.

A more comprehensive definition was then proposed by O'Malley and Chamot (1990) and Oxford (1990). For instance, O'Malley and Chamot defined LLSs as "the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information . . . special ways of processing information that enhance comprehension, learning, or retention of the information" (p. 1), underlying the information processing theory derived from cognitive psychology. Oxford, on the other hand, extended the definition of LLSs to convey the richness of language learning as follows: "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situation" (p. 8), and this definition has become one of the most frequently cited in the LLS research field.

Cohen (1998, p. 5) then discussed the following three aspects of LLSs: 1) language learning and language use strategies; 2) consciousness of strategy use; and 3) the effectiveness of strategy use. Firstly, he incorporated both "language learning strategies" and "language use strategies" in his definition of "second language learner strategies." Secondly, he suggested that the notion of "consciousness" should be encompassed in the definition of LLSs, as was also claimed by Gu (1996). Thirdly, he mentioned that "strategies themselves are not inherently good or bad, but have the potential to be used effectively" since the effectiveness of strategy use may be varied according to a given language task (p. 8). This third issue was later elaborated on by Oxford (2003, p. 274) as follows:

A learning strategy cannot, a priori, be categorized as either good or bad. What makes a strategy positive for a given person? A strategy is useful if the following conditions are present: (1) the strategy relates well to the L2 task at hand; (2) the student employs the strategy effectively and links it with other relevant strategies for doing the task; and (3) the strategy coordinates with the students' general learning style preferences to one degree or another.

According to Oxford (2003), the effectiveness of strategy use thus seems to be expected when learners use LLSs pertaining to the task requirements, they use several relevant strategies in combination, and they employ the LLSs which are in accord with their own style preferences.

Integrating several major definitions of LLSs, Takeuchi (2003b, p. 34) made one of the most comprehensive definitions of LLSs as follows:

(LLSs are) steps or actions consciously taken by a learner in learning foreign languages, which have the potential to make accomplishment of language tasks and language learning easier, more effective, and more efficient if a learner employs them at a certain stage of learning and utilizes them with a specific task solely or in combination.

He reemphasized that the notion of consciousness and of the effectiveness of strategy use should be incorporated in the definition of LLSs as Cohen (1998) suggested.

Table 2-1. A Summary of Definitions of LLSs Proposed by SLA Researchers

Author	Definition
Rubin (1975, p. 43)	“the techniques or devices which a learner may use to acquire knowledge”
Naiman et al. (1978, p. 4)	“general, more or less deliberate approaches to learning”
Cohen (1984, p. 110)	“the mental operations that learners utilize in accomplishing learning tasks”
Wenden (1987, pp. 6-7)	“language learning behaviors learners actually engage in to learn and regulate the learning of a second language . . . what they know about the strategies they use, i.e., their strategic knowledge . . . what they know about aspects of their language learning other than the strategies they use”
O’Malley & Chamot (1990, p. 1)	“the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information . . . special ways of processing information that enhance comprehension, learning, or retention of the information”
Oxford (1990, p. 8)	“specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations”

*(Table continued on next page)*

Table 2-1. (Continued)

Author	Definition
Cohen (1998, p. 5)	“second language learner strategies encompass both second language learning and second language use strategies. Taken together they constitute the steps or actions consciously selected by learners either to improve the learning of a second language, the use of it, or both”
Takeuchi (2003b, p. 34)	“steps or actions consciously taken by a learner in learning foreign languages, which have the potential to make accomplishment of language tasks and language learning easier, more effective, and more efficient if the learner employs them at a certain stage of learning and utilizes them with a specific task solely or in combination”

## 2.2 Identification and Classification of LLSs

As was described in the previous section, LLS research has emerged from the good language learner’s studies by Rubin (1975) and Stern (1975). First, Rubin identified the following seven characteristics of the good language learner based on her classroom observations and her experiences as a language teacher (1975, pp. 45-8):

- a) The good language learner is a willing and accurate guesser;
- b) The good language learner has a strong drive to communicate, or to learn from a communication;

- c) The good language learner is often not inhibited. He is willing to appear foolish if reasonable communication results;
- d) The good language learner is prepared to attend to form. The good language learner is constantly looking for patterns in the language;
- e) The good language learner practices. . . He will seek out opportunities to use the language;
- f) The good language learner monitors his own and the speech of others; and
- g) The good language learner attends to meaning.

Takeuchi (2003b) noted that in addition to these seven characteristics, Rubin touched upon the potential use of memorization techniques by the good language learner and called for the need to explore memorization strategies employed by the learner.

Stern (1975, pp. 311-6) then listed the following ten features that the good language learner may possess on the basis of his experiences as a teacher and a learner and of his reviewing relevant literature including Rubin (1975):

- 1) personal learning style or positive learning strategies;
- 2) an active approach to the learning task;
- 3) a tolerant and outgoing approach to the target language and empathy with its speakers;
- 4) technical know-how about how to tackle a language;
- 5) strategies of experimentation and planning with the object or developing the new language into an ordered system and of revising this system progressively;
- 6) constantly searching for meaning;

- 7) willingness to practice;
- 8) willingness to use the language in real communication;
- 9) self-monitoring and critical sensitivity to language use; and
- 10) developing the second language more and more as a separate reference system and learning to think in it.

Stern expanded the features of the good language learner by adding three features (i.e., 1, 2, and 10) to the Rubin's (1975) list.

Although Stern's list as well as Rubin's seemed to be useful for understanding the good language learner, these two lists were not based on empirical data, but rather on intuition (Gu, 1996). The first attempt to identify and classify LLSs based on empirical data was made by Naiman et al. (1978). They investigated 34 adult foreign language learners and 72 secondary school learners of French in Canada with an aim of clarifying the LLSs proposed by Stern (1975). Based on the data gathered from interviews and classroom observations, their study identified the following five primary categories of LLSs, along with a number of secondary categories: A) "active task approach," B) "realization of language as a system," C) "realization of language as a means of communication and interaction," D) "management of affective demands," and E) "monitoring of L2 performance" (pp. 30-3).

Rubin (1981), who had been working on eliciting LLSs by analyzing the data gathered from classroom observations and from self-reports by the learners, presented a classification system embracing two types of strategies: direct strategies which directly contribute to learning; and indirect strategies which indirectly contribute to learning. The former includes: a) "clarification/verification," b) "monitoring," c) "memorization," d) "guessing," e) "deductive reasoning," and f) "practicing." The

latter consists of: a) “creating opportunities for practice” and b) “communication strategies such as production tricks” (p. 118).

Although these two earlier classification systems by Naiman et al. (1978) and Rubin (1981) were developed based on empirical data, they lacked a solid theoretical background to explain how each strategy works for language learning (O’Malley & Chamot, 1990; Takeuchi 1991, 2003b). Based on the theory of cognitive psychology and the data obtained from observations and interviews with experts and novice learners, O’Malley and Chamot (1990) classified LLSs into three broad categories: “metacognitive strategies,” “cognitive strategies,” and “social/affective strategies” (pp. 44-5). “Metacognitive strategies” are defined as “higher order executive skills that may entail planning for, monitoring or evaluating the success of a learning activity” (p. 44). “Cognitive strategies” are those which “operate directly on incoming information, manipulating it in ways that enhance learning” (pp. 44-5). The use of “social/affective strategies” is related to “either interaction with another person or ideational control over affect” (p. 45). Although this classification scheme seems to be useful and reliable since it has a theoretical background, one limitation is that communication strategies such as production tricks, which were included in earlier studies and may be necessary and helpful for L2 learners, have not been incorporated in the scheme.

Oxford (1990) proposed a more comprehensive taxonomy including communication strategies, which were termed as “compensation strategies” in her taxonomy, with an attempt to encompass all the strategies mentioned in the previous research. Her taxonomy consists of two major classes: “direct” and “indirect,” which are subdivided into six groups of strategies: “memory strategies,” “cognitive strategies,” “compensation strategies,” “metacognitive strategies,” “affective strategies,” and “social strategies” (p. 14). The former class includes “memory

strategies,” “cognitive strategies,” and “compensation strategies,” which directly involves the use of TL. The latter, including “metacognitive strategies,” “affective strategies,” and “social strategies,” is used to support the learner’s language learning without involving the use of TL. This is one of the most successful classification systems of LLSs, and many researchers have employed this system to investigate learners’ use of LLSs. This system, however, overlaps among the subcategories and lacks an underlying theoretical background (Ikeda, 2004; Takeuchi, 1991). Some researchers (i.e., Dörnyei, 2005; Gu, 1996; Takeuchi, 2003b) also pointed out that “memory strategies” should not have been separated from “cognitive strategies” since the use of “memory strategies” is directly related to cognitive processing.

Lastly, as was touched upon in 2.1, Cohen (1998) devised a new classification system in which strategies were divided into two groups: 1) language learning strategies; and 2) language use strategies. The former group includes the strategies that contribute directly to learning the materials that need to be learned (i.e., categorizing, having repeated contact with, and memorizing the materials). The latter group, on the other hand, refers to the strategies for using the materials, including four subsets of strategies such as “retrieval strategies,” “rehearsal strategies,” “cover strategies,” and “communication strategies” (pp. 5-6). Criticisms made against this classification system are: 1) the two groups overlap, and it is difficult to distinguish them from each other; and 2) the former group (i.e., language learning strategies) relates only to memorizing materials and it thus seems to be used only for vocabulary and grammar learning (Ikeda, 2004).

### 2.3 Variables Affecting Strategy Use

In addition to identifying and classifying LLSs, researchers have strived to

investigate variables which have influences on a learner's choice of LLSs. The following variables have been found to affect a learner's strategy use thus far: age, gender, L2 proficiency, learning styles, motivation, prior language learning experiences, career orientations, cultural differences, contexts of learning, and language tasks (Gu, 1996; Oxford, 1989; Takeuchi, 1991, 2003b). Among these variables, particularly the variables of L2 proficiency and learning contexts are closely reviewed in the following sections since they seem to be significant for the studies of Japanese FL learners' strategy use (Takeuchi, 2003b).

### 2.3.1 L2 Proficiency

Takeuchi, Griffiths, and Coyle (2007) claimed that a primary reason to examine learners' use of LLSs is to determine the link between strategy use and L2 proficiency. This relationship has been investigated by employing two approaches: a quantitative and a qualitative approach.

Most of the LLS studies have adopted the first approach using strategy questionnaires and language proficiency or achievement tests. These studies attempted to reveal the relationship between the frequency of strategy use and the test scores by means of correlation analysis and regression analysis or *comparing groups by t-tests* and analysis of variance (ANOVA) (e.g., Bruen, 2001; Dreyer & Oxford, 1996; Green & Oxford, 1995; Hong-Nam & Leavell, 2006; Kaylani, 1996; Khalil, 2005; Magogwe & Oliver, 2007; Nisbet, Tindall, & Arroyo, 2005; Politzer & McGroarty, 1985; Shmais, 2003; Takeuchi, 1993; among others).

Some of these quantitative studies found that there was a positive relationship between the frequency of strategy use and L2 proficiency (e.g., Bruen, 2001; Dreyer & Oxford, 1996; Green & Oxford, 1995; Khalil, 2005). For example, Dreyer and Oxford

(1996), whose participants were 305 first-year students learning ESL at a university in South Africa, examined the relation between the learners' strategy use assessed by the *SILL*<sup>2</sup> and their English proficiency measured by TOEFL. The analysis showed highly significant correlation ( $r = .73, p < .0001$ ) between the overall use of LLSs and the test scores. A study carried out by Green and Oxford (1995), which investigated 374 university students of ESL in Puerto Rico, identified significant differences in the overall use of LLSs and in the use of broad strategy categories within the *SILL* in terms of three different course levels divided by placement tests. This result indicates that learners with higher proficiency employed more strategies more frequently than did learners with lower proficiency, which was consistent with other *SILL* studies by Bruen (2001) and Khali (2005).<sup>3</sup>

Some studies also reported that there was a strong relationship between strategy use and L2 proficiency (Dreyer & Oxford, 1996; Kaylani, 1996; Takeuchi, 1993). For instance, Dreyer and Oxford (1996), performing a regression analysis with the data obtained from the *SILL* and the TOEFL scores, showed that the learners' strategy use was the best predictor of their English proficiency variance among other variables (i.e., learning styles and personalities), and that the strategy use accounted for approximately 45% of the total variance on their English proficiency. Similarly, employing the *SILL* and a standardized English proficiency test, Takeuchi (1993) examined 78 Japanese college students of EFL and found that approximately 58% of the total variance on English proficiency was explained by eight strategies included in the *SILL*.<sup>4</sup> Another instance was provided by Kaylani (1996), who examined 255 upper secondary school seniors learning EFL in Jordan. In this study, the learners' proficiency levels and gender differences explained 30% and 11% of the total variation in their strategy use respectively. This result indicates that the learners' proficiency

levels explained more of the differences in strategy use than did gender.

In contrast to the studies reviewed above, several quantitative studies found neither a positive correlation nor a strong relationship between strategy use and L2 proficiency. For example, in the study by Shmais (2003), who examined the strategy use by 99 Palestinian university students of EFL, there was no significant difference in the overall strategy use between more proficient and less proficient learners, and a negative relationship was found between the use of affective strategies and English proficiency.<sup>5</sup> Another example was provided by Politzer and McGroarty (1985), who investigated 37 Asian and Hispanic students enrolling in an eight-week intensive ESL course in the United States. This study did not yield strong positive relationships between the reported strategy use measured by the original questionnaire and the gain scores on the three language tests.<sup>6</sup> In addition, a non-linear relationship was found in other studies. For example, Hong-Nam and Leavell (2006) conducted a study with 55 adult ESL learners by using the *SILL* and a placement test. This study revealed that the intermediate-level group reported more frequent use of strategies than did the beginning-level and the advanced-level groups. Another *SILL* study by Magogwe and Oliver (2007) also found such a non-linear relationship between L2 proficiency and strategy use by 137 students learning ESL at the tertiary-level in Botswana. Moreover, a weak relationship was found by Nisbet et al. (2005), who examined the strategy use of 168 Chinese university EFL students by means of the *SILL*. Their study showed that although a combination of two variables (metacognitive and affective strategies) was significantly correlated with English proficiency as measured by TOEFL, these two variables jointly accounted for only 4% of the total variance on their TOEFL scores.

The literature described above indicates that the previous studies failed to reach consensus on the relationship between the frequency of strategy use and L2 proficiency.

In their extensive review of previous LLS studies, Takeuchi, Griffiths, and Coyle (2007) also identified this kind of discrepancy in the relationship between these two variables, and provided the following four explanations for the inconclusive results: 1) other confounding variables (e.g., tolerance of ambiguity, self-esteem) may have influenced strategy use; 2) the types of proficiency tests may have affected the results; 3) learners may have employed the strategies other than those included in the strategy instruments; and 4) not the frequency of strategy use, but the flexibility of strategy use for the given context may have determined learning outcomes. Particularly, the last explanation has attracted the attention of LLS researchers recently (e.g., Anderson, 2005, 2008; Grenfell & Macaro, 2007; Gu, 2005) since new insights into the flexibility of strategy use have been gained from some studies which employed a qualitative approach (e.g., Gan et al., 2004; Ikeda & Takeuchi, 2006; Vandergrift, 2003; Vann & Abraham, 1990).

Vandergrift (2003), for example, analyzing 36 listeners' think-aloud protocols, revealed that more skilled listeners utilized metacognitive and cognitive strategies in an orchestrated way compared with less skilled ones.<sup>7</sup> Vandergrift elaborated on the effectiveness of the combined use of strategies by the more skilled listeners as follows: "the metacognitive strategies oversee the process, directing the deployments of appropriate cognitive strategies (as the orchestra conductor directs the players in creating a harmonious performance) to interact with the input and achieve the final goal of comprehension" (p. 485).

A sequence of steps in strategy use was also found to be one of the characteristics of successful learners (Gan et al., 2004). Gan et al. examined the attitudinal/behavioral differences between successful and unsuccessful tertiary-level Chinese learners of EFL by analyzing the data obtained from interviews, diaries, and

follow-up email correspondence.<sup>8</sup> Their study found that although both the successful and the unsuccessful learners employed some similar cognitive strategies (i.e., rote-memorization, lesson previewing) frequently, the successful learners utilized these strategies in the following specific sequence of steps to learn new vocabulary and lesson materials effectively (p. 236):

- 1) memorizing the new words on the vocabulary list attached to the text;
- 2) reading the texts several times, not only to get a global understanding but also to underline the specific parts they felt particularly interested in or felt necessary to concentrate on later in class;
- 3) attempting to do the exercises at the end of the text independently; and
- 4) preparing questions that would be worth discussing with the teacher or classmates.

Based on these findings, Gan et al. concluded that “the quality (i.e., the depth and width) in the use of some common cognitive learning or practicing strategies varied to some extent between the successful and unsuccessful students” (p. 239).

Analyzing two unsuccessful learners’ think-aloud protocols and their task products, Vann and Abraham’s (1990) case study identified a lack of systematic approach to the use of LLSs by the unsuccessful learners who showed relatively highly frequent use of LLSs and were not inactive in strategy use.<sup>9</sup> For example, although one unsuccessful learner called “Shida” often utilized “*monitoring*” as she engaged in correcting faulty pronunciation, she scarcely employed the strategy after finishing some language tasks (i.e., verb exercises and cloze tests). This means that the learner lacked a systematic use of “*monitoring*” and thus failed to complete the language tasks.

Based on this finding, Vann and Abraham claimed that “noncontextualized strategy counts failed to differentiate unsuccessful from successful learners” (p. 190).

In addition to the flexibility of strategy use, Ikeda and Takeuchi (2006)’s portfolio study identified purposeful use of strategies by higher proficiency learners. The participants of their study were ten Japanese female college students of EFL, consisting of five in the higher proficiency group and the other five in the lower proficiency.<sup>10</sup> They were required to make a portfolio and to record retrospective accounts of how they had utilized strategies while reading an English passage. The analysis of the portfolios showed that the higher proficiency readers had a better understanding of the merit of each strategy use and thus employed strategies more effectively to comprehend the English passage than did the lower proficiency readers.

In brief, this subsection suggests that the results obtained from quantitative studies were inconsistent and the relationship between strategy use and L2 proficiency was inconclusive in terms of the frequency of strategy use. Such an unresolved relationship was illuminated by some qualitative studies, which suggested that the flexibility of strategy use and the purposeful use of LLSs might play a key role in successful language learning. It should be noted therefore that although quantitative studies can statistically investigate and reveal to some extent the relationship between these two variables in terms of frequency of strategy use, it is insufficient to clarify the entire relationship. Qualitative approach should thus be also employed to scrutinize the relationship. Nevertheless, only a handful of studies have employed both approaches to examine the relationship (e.g., Bruen, 2001; Gan, 2004; Gan et al, 2004, Gu, 2005).<sup>11</sup>

### 2.3.2 Learning Contexts

In addition to learner variables (e.g., L2 proficiency described above), learning

contexts such as the differences in the contexts between SL and FL seem to be influential on learners' strategy use.<sup>12</sup>

The following two quantitative studies were implemented in SL contexts with learners from the same ethnic group. One study was conducted by Green and Oxford (1995) who examined the strategy use by 374 students learning ESL at a university in Puerto Rico.<sup>13</sup> Among them, more successful learners frequently employed the following strategies: active language use with a strong emphasis on practice in natural or naturalistic situations; and cognitive and social strategies for conversation practice. Based on this finding, the authors argued that the learners in the SL context could have more access to the TL and thus employed the strategies which involve the TL use for communication. Another study was conducted by El-Dib (2004), who examined 504 learners enrolling in the four colleges in Kuwait.<sup>14</sup> Similar to Green and Oxford, this study also showed that learners with higher proficiency used active naturalistic strategies due to the rich authentic input available in the context. The findings obtained from these two studies were supported by Carson and Longhini's (2002) diary study, which was carried out in Spanish as a SL context in Argentina. This study found that: 1) compensation and conversation strategies were frequently employed by the learner, and 2) memory strategy use was not frequent and not associated with *high proficiency* in the SL context. Accordingly, it seems that SL learners' strategy use is facilitated by the naturalistic learning contexts and that strategies relating to naturalistic TL use for communication tend to be employed by learners in SL contexts.

On the other hand, strategies pertaining to naturalistic TL use appear to be less frequently employed in FL contexts. For instance, Shmais (2003) examined EFL college learners' strategy use in Palestine and found infrequent use of compensation strategies. Based on this result, she claimed that the lack of compensation strategies

was due to the educational system in Palestine where the learners had very limited opportunities to try functional practices especially in large-sized classes. Other studies conducted in the Asian EFL contexts (e.g., in China and in Japan) identified specific types of strategies favored in these contexts. For instance, Gan (2004), who examined self-directed language learning attitudes and strategies of 357 Chinese university students of EFL, found that the students reported highly frequent use of memory strategies for vocabulary learning since they tended to have a belief that they should master a considerable amount of vocabulary before starting any other English activities (i.e., speaking and reading). According to the author, this belief might have been generated by the lack of naturalistic language learning environments and by the requirements of examinations such as the college English test (CET).<sup>15</sup> Another study was conducted by LoCastro (1994), who examined Asian graduate and undergraduate advanced EFL learners' strategy use.<sup>16</sup> In interviews, the participants reported on the importance of: a) memorizing grammatical rules and vocabulary; b) using metacognitive strategies such as doing extra work outside the regular educational systems; and c) using cognitive strategies concerning listening and oral practices (i.e., listening to English radio programs, watching TV programs and movies in English, oral reading, and reciting texts). The participants also pointed out that the *SILL* was inappropriate because there were no strategies specifically addressing listening as a means of learning. Based on these findings, LoCastro questioned the application of the findings obtained in North American studies with immigrants and/or ESL learners to Asian EFL learners, who have different social and educational backgrounds. Similar types of strategies to those found by LoCastro were identified in Takeuchi's (2003a) qualitative study. The following strategies were found to be especially favored by Japanese FL learners: a) metacognitive strategies (i.e., increasing opportunities to use

the TL for communication), b) skill-specific cognitive strategies related to conscious learning, c) memory strategies used to internalize the linguistic system, and d) cognitive strategies for practicing (i.e., imitating, shadowing, and pattern-practicing). He claimed that these strategies were preferred uniquely in the FL context where few occasions to use the TL were available.

As was reviewed above, there seem to be considerable differences in strategy use according to SL/FL learning contexts. Learners in SL contexts reported on the frequent use of cognitive and social strategies involving naturalistic TL use, whereas those in FL contexts frequently reported on the use of cognitive strategies including memory strategies which were linked to practicing the TL based on the classroom learning and to using available resources (i.e., radio and TV programs). Such differences seem to be associated with the availability of TL use for communication and the types of classroom activities in the learning contexts. This assumption is consistent with the results obtained from the empirical studies which had compared strategy use by ESL learners and that by EFL learners (Gao, 2006; Kojic-Sabo & Lightbown, 1999; Riley & Harsch, 1999). For example, Kojic-Sabo and Lightbown (1999) examined ESL and EFL learners' vocabulary-learning strategy use. Their study showed that ESL learners employed cognitive strategies (i.e., *reviewing*) less often than did EFL counterparts because reviewing was not crucial for the ESL learners, who were exposed to the TL on a daily basis. Riley and Harsch's (1999) diary study also indicated that ESL learners took more advantages of availability of native English speakers in the environment and employed more social and communication strategies. EFL learners, on the other hand, employed more cognitive strategies (i.e., using images, saying and writing words repeatedly, and skimming texts). ESL and EFL learners' different use of strategies was further elaborated on by Gao (2006) with the application

of socio-cultural and educational approach. In this study, the participants learning EFL in China employed the following memory and cognitive strategies: rote-memorizing, note-taking, and regular reviewing in relation to the learning discourse (i.e., taking exams and fulfilling curricular requirements) and to the agents (i.e., their teachers requiring them to recite all the texts, and experts mentioning the usefulness of memorization). After the participants moved to Britain (ESL context), on the other hand, they showed more regular use of social and interactive strategies<sup>17</sup> due to the fact that exam-taking necessities (i.e., learning discourse) had disappeared and some learners had developed new ways to improve their English after they had met supportive English-speakers (i.e., agents) in the ESL environment.

The literature reviewed in this subsection suggests that LLS studies should be situated in a specific learning context. There seems to be, however, a lack of studies which had examined strategy use in terms of learning contexts, as was pointed out by some LLS researchers (e.g., LoCastro, 1994; Takeuchi, 2003b; Woodrow, 2005). In addition to SL and FL contextual differences, situational differences such as language learning inside or outside the classroom should be one of the variables affecting learners' strategy use. For instance, Politzer and McGroarty (1985) took account of these situational differences, and devised an inventory to examine Asian and Hispanic adult learners' strategy use in terms of the following three settings: classroom study; individual study; and social interaction outside of the classroom. Yabukoshi (2004), in her diary study, also employed the situational approach and examined Japanese FL learners' strategy use in relation to inside and outside the classroom settings. This study revealed that while the learners tended to utilize LLSs associated with the instructor's teaching methods employed inside the classroom, they were apt to self-direct their use of strategies outside the classroom. In other words, the learners

utilized strategies differently in terms of in-class and out-of-class settings. Such situational variables, which have long been neglected, should be taken into account in the future LLS research.

#### 2.4 LLS Studies with Japanese Lower Secondary School Students

This section reviews LLS studies conducted with Japanese EFL learners, particularly with those at the lower secondary school level. Although learners at the university and upper secondary school levels have been the main focus of LLS research in Japan,<sup>18</sup> some researchers emphasized the importance of strategy instruction for beginning EFL learners with a hope of leading them to autonomous learners in the future (Hiroshima, 2002; Ozeki et al., 2005; Sakamoto & Nagase, 1987). Several studies were thus conducted to explore the LLSs typical of lower secondary school learners of EFL in Japan (e.g., Hirano, 2000; Hojo, 1998; Wakamoto, 1993; among others).

Wakamoto (1993) made a first attempt to identify the strategies used by 457 students learning EFL at public and private lower secondary schools by using the adapted version of the *SILL*.<sup>19</sup> This study revealed that the students employed cognitive strategies (i.e., repetition, skimming, using a dictionary, *guessing*, and *asking* questions) frequently and strategies relating to naturalistic practicing of the TL less frequently. This study also reported that there were positive relationships between strategy use and English proficiency, which was measured by the *STEP* test.<sup>20</sup> Based on the findings, he claimed that the students with higher proficiency seemed to use several strategies more frequently and have a wider repertoire of strategies than did those with lower proficiency, who tended to employ formal practice strategies, which were familiar to them.

Another *SILL* study was conducted by Tsuda (2004), who examined the strategy use of 122 students learning EFL at a Japanese lower secondary school, which is affiliated to a national university.<sup>21</sup> Similar to Wakamoto (1993), she found that: 1) cognitive strategies were frequently reported by the students; and 2) there was a positive relationship between overall strategy use and English achievement test scores. In addition, this study showed that the use of social strategies was frequent and the use of affective strategies was infrequent among the students.

These two studies reviewed above have provided valuable insight for how learners at the lower secondary school level learn English. However, the validity of the *SILL* for assessing their strategy use was not fully examined in these studies. In fact, although Tsuda employed the *SILL* in her study, she showed some concerns for using the inventory for Japanese lower secondary school students of EFL at the same time. Although the *SILL* was designed to be applicable in different countries and cultures, Tsuda claimed that the *SILL* might not be appropriate for Japanese EFL learners' strategy use since some items in the *SILL* (e.g., using rhymes to remember new words, some of the affective strategies) are not familiar to them.

Motivated by the necessity to confirm the validity of the *SILL* for Japanese lower secondary school students of EFL, Yukina (2000) performed an exploratory factor analysis with the *SILL* data obtained from 200 students learning EFL at a private lower secondary school. The analysis showed that: 1) the six-factor solution of the *SILL* was not appropriate for the data obtained from the participants; and 2) the total percentage of variance accounted for by these six factors was relatively low (about 37%). Yukina provided the following account for these results: several strategies included in the *SILL* were barely employed in the Japanese EFL context, where the oral input and output of the TL are very limited compared with other countries.

Eventually, Yukina concluded that the *SILL* may not be applicable to the Japanese lower secondary school students of EFL, and called for the construction of a suitable questionnaire for these students.<sup>22</sup>

Considering the lack of strategy questionnaire for lower secondary school learners of EFL in Japan, Hojo (1998) attempted to construct an original instrument by applying factor analysis. She selected 27 strategy items on the basis of a previous study,<sup>23</sup> and administered it to 59 students at a public lower secondary school. A factor analysis revealed four types of strategies used by these students: 1) rote-learning strategies; 2) metacognitive strategies and active involvement in self-study; 3) vocabulary-learning strategies; and 4) social strategies. Comparing these results with those obtained from university students in Hojo's other studies (1996, 1997), she claimed that social strategies were especially favored by learners at the lower secondary school level.

Hirano (2000) also devised a questionnaire comprising 48 items based on several previous studies,<sup>24</sup> and examined the vocabulary-learning strategy use by Japanese lower secondary school students of EFL. Applying factor analysis with the data obtained from 174 students at three public lower secondary schools, four types of strategies were uncovered: 1) memorization strategies; 2) *visualization strategies*; 3) planning strategies; and 4) oral repetition strategies. According to Hirano, oral repetition strategies might be extracted due to the emphasis of reading aloud and oral communication activities in the Japanese EFL classrooms. This means that their strategy use was influenced by the teaching methods employed by the teachers during English classes. The ANOVA was then performed to examine the relationship between strategy use and English proficiency. Similar to other studies (i.e., Tsuda, 2004; Wakamoto, 1993), a positive relationship was found between strategy use and English

proficiency.

Such a positive linkage between strategy use and English proficiency was also ascertained by Tatematsu (2003), who focused on listening comprehension strategies with 27 students learning EFL at a public lower secondary school. 35-item listening strategy questionnaire<sup>25</sup> and the *STEP* listening test were administered. The results of the *t*-tests indicated that more successful listeners ( $N=14$ ) utilized metacognitive strategies and cognitive strategies more frequently than did the less successful ones ( $N=13$ ). Additionally, highly positive correlations were found between the proficiency of listening comprehension and metacognitive strategies ( $r=.67$ ) and cognitive strategies ( $r=.59$ ). However, it bears noting that the number of the participants in this study was too small to conduct the parametric statistical analyses (i.e., *t*-tests). Moreover, the study repeated the *t*-tests three times using the three dependent variables (i.e., frequency scores of metacognitive, cognitive, and social/affective strategies) without Bonferroni adjustments. The results obtained from this study should thus be viewed with due caution, and the replication of this study with larger sample is called for.

Contrary to the previous studies reviewed above, a study by Yamamori, Isoda, Hiromori, and Oxford (2003) did not yield a positive linear relationship between strategy use and English achievement among 81 Japanese lower secondary school students. They questioned the validity of the *SILL* for assessing the strategy use by the Japanese EFL students, and devised an original strategy inventory including five items based on the open-ended data gathered from 200 students at the lower secondary school.<sup>26</sup> Applying a cluster analysis, this study identified four groups of learners: two high-achieving groups; and two low-achieving groups. In terms of strategy use, they found that: 1) one of the high-achieving groups reported on frequent use of not overall

strategies but only selected strategies; and 2) one of the low-achieving groups showed relatively frequent use of most of the strategies. Based on the findings, they claimed that high frequency of strategy use did not ensure success in language learning as was discussed in 2.3.1.

The last study reviewed here is a qualitative study by Nakano (2000), who attempted to reveal vocabulary-learning strategies used by effective learners at the lower secondary school level. The participants of this study were six students, consisting of three more effective learners and three less effective learners, who were selected from 150 seventh graders learning EFL at a public lower secondary school.<sup>27</sup> They were asked to keep a diary as to how they had learned new vocabulary for the period of one-month. Interviews were also conducted to supplement the diary data. The analyses of the six learners' diaries and interview data revealed that the more effective learners seemed to: 1) have a wider range of strategies; 2) monitor the task and use strategies flexibly; 3) use strategies to achieve their goals; and 4) review words repeatedly using their spare time, compared with the less effective learners.

According to the literature reviewed in this section, Japanese EFL learners at the lower secondary school level tended to employ cognitive strategies (i.e., repetition, rote-memorization, guessing) and social strategies frequently, and affective strategies infrequently. The use of metacognitive strategies, which seems to be a key for successful language learning (Chamot, 2004; Wenden, 2001), was also identified by factor analyses. Concerning the relationship between strategy use and English proficiency, a positive linear relationship was not always found among these learners, which is in accord with the other LLS studies reviewed in the previous section (2.3.1). Moreover, teaching methods employed by the teachers in the EFL class were likely to have an impact on their students' strategy use.

The previous studies have provided valuable insight for how learners at the lower secondary school level learn English. There were, however, several limitations involved with these studies. One is that although most of the studies employed a questionnaire (i.e., the *SILL* or their original instrument) as a data elicitation tool, the validity and the reliability of the questionnaire was neither examined nor clearly mentioned in each study. Moreover, none of the original instruments seemed to be developed according to the systematic procedure recommended by Dörnyei (2003) and Kamahara, Miyashita, Onoki and Nakazawa (1998).<sup>28</sup> This means that it is unclear whether these instruments are reliable and their results generalizable. Therefore, a valid and reliable questionnaire for learners at the lower secondary school level should be systematically developed. Another limitation is related to a lack of qualitative studies conducted with these learners. To the best of the author's knowledge, Nakano (2000) is the only one which employed a qualitative method and shed light on how learners at the lower secondary school level use strategies. As was suggested in 2.3.1, researchers may not be able to reveal effective use of strategies without using qualitative methods. The application of qualitative methods therefore should be encouraged to unveil the effective use of strategies by Japanese lower secondary school students of EFL.

## 2.5 Summary

In this chapter, firstly, the conceptual background of LLSs has been presented in section 2.1. This section suggests that LLS research has been established as one of the important branches of inquiry in the field of SLA, since the use of LLSs plays a vital role in L2 learning and LLSs are teachable to learners. However, there are various definitions of LLSs, which has led to confusion in interpreting L2 learner strategy

studies, and makes it difficult for SLA researchers to apply those findings to other studies (Gu, 1996). Therefore, the conceptual operationalization of LLSs should be clearly stated at the onset of any future research.

Secondly, the identification and the classification of LLSs were thoroughly reviewed in 2.2. Because LLSs were found to be both identifiable and classifiable, it was concluded that they can be effectively investigated by researchers. The same classification systems, however, are not always applied to all language learners in various learning contexts (Takeuchi & Wakamoto, 2001; Woodrow, 2005). In this connection, Chamot (2004) has criticized that major classification systems (i.e., cognitive and metacognitive strategies) have been developed for research purposes and may not be practical without taking into account practical educational settings. She suggested that “names and classification of learning strategies for instructional purposes should probably be organized so that they are easy to understand and teach” (p. 22).

Thirdly, learners’ strategy use was found to be affected by several variables, and two major variables (i.e., L2 proficiency and learning contexts), which seem to be important for the study of Japanese FL learners, were closely reviewed in 2.3.1 and 2.3.2 respectively. Concerning the first variable, the results obtained from quantitative studies varied, and the positive relationship between strategy use and L2 proficiency was not always ascertained. Qualitative studies, on the other hand, shed light on the flexible and the purposeful use of LLSs and provided new insight into the relationship between strategy use and L2 proficiency. Regarding the second variable (i.e., learning contexts), the review of literature suggests that, although learners’ strategy use seems to be susceptible to the differences between SL and FL learning contexts, few LLS studies have taken it into account. Furthermore, many of the LLS studies have been

implemented in North America, while the absence of investigation in the Asian EFL context is conspicuous (Gan et al., 2004; Gu, 1996, 2005; Takeuchi, 2003b). Additionally, contextualizing strategy use in terms of classroom and non-classroom settings should receive more attention in future LLS research.

Finally, turning to Japanese EFL contexts, the author reviewed previous LLS studies conducted with Japanese lower secondary school learners in 2.4. The review of the literature indicates that, although LLS studies with these learners has begun to increase, their strategy use has yet to be fully explored and clarified since: a) there is a lack of valid and reliable strategy questionnaires available to these learners; and b) qualitative studies with these learners are lacking. Accordingly, there are several problematic issues remaining unsolved in LLS research, which have led the author to conduct the present research described in the ensuing chapters.

## Notes

1. The intervention studies are not discussed in this chapter since this dissertation is concerned with the descriptive studies only. The efficacy of strategy instruction has been empirically confirmed by several LLS studies (e.g., Chin, 1999; Cohen, Weaver, & Li, 1996; Graham, 2008; Ikeda & Takeuchi, 2003; O’Malley, 1987; among others). For instance, learner’s L2 proficiency tends to be improved by strategy instruction (Chin, 1999; O’Malley, 1987). In addition to L2 proficiency, Cohen et al. (1996) found positive effects of instruction on the frequency of strategy use. In another instance, Ikeda and Takeuchi (2003) ascertained that the effects of reading strategy instruction were retained for five months after the instruction finished. More recently, Graham (2008) showed that strategy instruction had a beneficial impact on the learners’ self efficacy in her

study, where the learners were encouraged to see the connection between the strategies they had employed and what they had achieved while listening.

2. The *SILL* was developed based on the six-classification system proposed by Oxford (1990). See 2.2 for the details of the classification system.
3. Bruen (2001) investigated the relationship between the frequency of strategy use measured by the *SILL* and L2 oral proficiency among 100 second-year students taking German courses at a university in Dublin. Khalil (2005), whose participants were 194 upper secondary school and 184 university students of EFL in Palestine, explored if there were significant differences in the frequency of strategy use assessed by an Arabic translation of the *SILL* according to different EFL proficiency levels, which was determined by the years of language study.
4. There were significantly positive relations between the proficiency test scores and the following four strategies: “writing notes and letters in English,” “not translating,” “paying attention when someone is speaking English,” and “analytical approach.” On the other hand, there were significantly negative relations between the test scores and the following four strategies: “questioning in English,” “finding ways to learn English,” “using flashcards,” and “keeping a language learning diary.”
5. The participants’ strategy use and their English proficiency were assessed by the adapted version of the *SILL* and the university course grade scores respectively.
6. The strategy questionnaire was constructed in relation to the following three settings: a) classroom study, b) individual study, and c) social interaction. The language tests consisted of the following three tests: i) the Plaister Aural Comprehension Test (PACT), ii) the Comprehensive English Language Test for

Speakers of English as a Second Language (CELT), and iii) a communicative competence test (CC) developed by the senior author. These tests were used to measure the participants’ listening comprehension, grammatical skill, and communicative ability respectively. The analyses showed that: 1) there was only one positive correlation between social interaction behaviors and gains on global evaluation of CC; and 2) there were negative correlations between classroom and individual study behaviors, and gains on the CELT.

7. Each participant was categorized as either a more skilled or a less skilled listener based on the scores of the listening comprehension test. When piloted, the test had an acceptable level of reliability (Cronbach’s alpha=.83).
8. The students participating in this study were classified into successful or unsuccessful learners according to the results of the CET and their performance in regular English classes. The CET is a standardized English language proficiency test designed and administered by the National College English Testing Committee supported by the Chinese Ministry of Education. The test includes listening and reading comprehension, vocabulary and grammar structure, and writing sections.
9. These two learners were both Arabic-speaking Saudi Arabian women, who had enrolled in an intensive English program in the United States. They were regarded as unsuccessful in learning ESL based on the scores obtained from the Michigan English Placement Test and TOEFL.
10. The results of a 45-item cloze test and in-class review quizzes were utilized to divide the participants into higher and lower proficiency groups.
11. Gan (2004) and Gan et al. (2004) were related to each other. The former study was quantitative and the latter was qualitative.

12. As was described in Note 1 in Chapter 1, the author makes a distinction between SL and FL, if necessary, in this dissertation.
13. According to Green and Oxford (1995), Puerto Rico was regarded as one of the hybrid contexts and was described as follows: "English speakers in Puerto Rico (both native speakers and bilinguals) exercise considerable influence, and a great deal of potential English input is available for learners who wish to take advantage of it. On the other hand, Puerto Rico learners can easily survive without using English for communication, so the island might in this respect appear to have characteristics of an EFL setting" (pp. 265-6). This dissertation regards the hybrid context as one example of SL contexts since the availability of TL input and opportunities to use TL for communication in the hybrid context seem to be similar to those in SL contexts.
14. According to El-Dib (2004), English is the official second language, and people from different nationalities with different first languages share English as a means of communication in Kuwait.
15. See Note 8 for the explanation of the CET.
16. The participants of this study were comprised of 16 Japanese and 12 other Asian students including Chinese, Taiwanese, Thai, and South Korean. They were all considered to be advanced EFL learners based on the fact that they had been accepted to enroll in university programs which had required a 500 or higher TOEFL paper-based testing score or its equivalent.
17. The following strategies were included: guessing, acquiring and applying meanings of new words in actual conversations, talking a lot with their host family with simple words and sentences, using a dictionary to look for

- appropriate words to express themselves, and asking questions.
18. Many LLS studies were conducted with learners at the university level (e.g., Hojo, 1996, 1997; Ikeda, 2005; Ikeda & Takeuchi, 2000, 2003, 2006; Kikuchi, 2004; Mochizuki, 1999; Takeuchi, 1993, 2003b; Takeuchi & Wakamoto, 2001; Tanoue, 2004; among others); and with those at the upper secondary school level (e.g., Hirano, 1999a, 1999b; Isaji, 2006; Maeda, 2002; Maeda & Yamato, 2000; Matsumoto, 2000; Mizohata, 2003; among others).
  19. Two items were added to the original *SILL*: "memorizing English sentences" and "reading English texts aloud."
  20. The *STEP* (*Society for Testing English Proficiency*) test is a standardized test which measures learners' four English language skills (speaking, listening, reading, and writing). The test is evaluated on a pass or fail basis in seven bands. Approximately 2.4 million examinees took the test in 2007 (<http://www.eiken.or.jp/english/index.html>).
  21. This study also examined the strategy use of 14 returnee lower secondary school students and implemented strategy instruction. Positive influences of the instruction were found with these students.
  22. The validity of the *SILL* for Japanese tertiary-level EFL learners has also been questioned by several researchers (i.e., LoCastro, 1994; Takeuchi, 2003b; Takeuchi & Wakamoto, 2001).
  23. These items were chosen based on Ogino (1994), which examined Japanese lower secondary school students' learner characteristics (i.e., LLSs, learning styles, motivation, and gender). With regard to the LLSs, 74 items were selected on the basis of the *SILL* in this study.
  24. These items were selected from the inventory made by Anezaki (1999, cited in

Hirano, 2000), which was originally developed based on Gu and Johnson (1996).

25. The questionnaire was designed based on the definition and classification of listening comprehension strategies by Vandergrift (1997).
26. These were: a) "I read the textbook repeatedly"; b) "I memorize what I learned in the class by writing again and again"; c) "I translate the sentences in the textbook"; d) "I recall what I learned in the class for reviewing"; and e) "I use the dictionary" (Yamamori et al., 2003, p. 386).
27. These six students were selected based on their course grades and the results of a vocabulary quiz as well as an intelligence test.
28. Constructing a valid and reliable questionnaire should involve the following steps: 1) creating an item pool; 2) piloting the questionnaire and conducting item analysis; and 3) conducting the main study and examining the reliability of the questionnaire (Dörnyei, 2003; Kamahara, Miyashita, Onoki, & Nakazawa, 1998). Additionally, Kamahara et al. recommend validating the questionnaire by confirming the questionnaire's validity (e.g., the construct validity, the criterion-related validity) after the third step.

### 3. Research Design for Studies 1 to 4

#### 3.1 Purposes

As was described in Chapter 2, strategy use by Japanese EFL learners at the lower secondary school level has not been fully examined. More specifically, 1) strategies typical of these learners; and 2) the relationship between their strategy use and learning outcomes have yet to be explored due to both a lack of a valid and reliable questionnaire to assess their strategy use and a paucity of qualitative studies with these learners. In other words, we are not well informed about how they learn English and how their approaches relate to learning outcomes. Without this information, we cannot fully plan and implement successful strategy instruction for these learners. Furthermore, the literature review identified the following important issues: A) situational differences (i.e., SL/FL learning contexts as well as inside/outside classroom settings) should be taken into account in the investigation of LLSs; and B) the relationship between strategy use and L2 proficiency should be examined both quantitatively and qualitatively. To gain new insights into the strategy use by lower secondary school learners and to address these issues, the present research was conducted with the following three purposes:

1. to develop a valid and reliable questionnaire in order to examine the strategy use, inside and outside the classroom, of lower secondary school students in the Japanese EFL context;
2. to profile their strategy use inside and outside the classroom in terms of the type and the frequency of strategy use; and

3. to explore the relationship between their strategy use and learning outcomes, as reflected in L2 proficiency, both quantitatively and qualitatively.

### 3.2 Framework of the Present Research

To accomplish the purposes presented above, four empirical studies were carried out as illustrated in Figure 3-1. First, in order to prepare an item pool for the questionnaire, the author conducted Study 1 in an attempt to elicit various strategies utilized by Japanese EFL learners in a lower secondary school and to observe patterns of their strategy use inside and outside the classroom. Subsequently, drawing on the item pool and the findings obtained in Study 1, the author made an attempt to develop a valid and reliable strategy questionnaire for these learners. Using the questionnaire, she also attempted to profile their strategy use inside and outside classroom in terms of the type and the frequency of strategy use (Study 2). The author then conducted another questionnaire study in an attempt to determine whether there is a positive linkage between the quantity of strategy use (i.e., frequency of use) and English proficiency (Study 3). Shifting to the details of strategy use, lastly, the author carried out Study 4 to scrutinize the relationship between strategy use and English proficiency by collecting and analyzing qualitative data (i.e., diaries and interviews).

### 3.3 Participants and Settings

The participants of the present research were Japanese students learning EFL at a lower secondary school, which is affiliated with a national university of education and is located in the western part of Japan. Approximately 360 students ranging from seventh to ninth graders are enrolled in the school in one academic year.

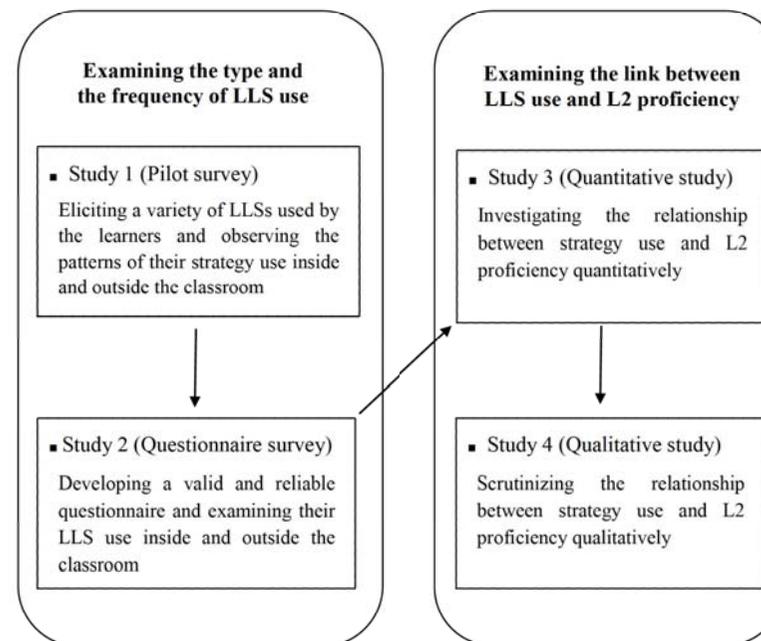


Figure 3-1. Framework of the present research.

The male-female ratio in the school is nearly equal. The data gathered from the students who had spent more than one year abroad or who are using English at home were excluded from the analysis<sup>1</sup> because these students' strategy use may be different from other students' (Wharton, 2000).<sup>2</sup> Most of the students at the lower secondary school were from the same elementary school that is attached to the lower secondary school. At the elementary school, an English teaching curriculum had been started in 2000, and the participants of the present research had studied EFL for at least two years at the school, where they had mainly studied English pronunciation and daily

expressions orally through English songs and games without explicit instruction on alphabetical letters and grammatical features.<sup>3</sup> In light of such past learning experiences, they were still considered to be beginning EFL learners, and the course for the seventh grade (i.e., the first year of lower secondary school in the Japanese educational system) generally starts with instruction on alphabetical letters. Compared with students at public lower secondary schools, the participants of the present research seemed to be more proficient in English according to the results obtained from the standardized test, *GTEC for STUDENTS*, which is explained in 6.1.1. In addition, they were fairly motivated to learn English, and they actively participated in English classes.

Concerning the in-class setting, the English curriculum at the lower secondary school focused on improving the learners' communicative ability as well as their linguistic ability. The participants received a fifty-minute English lesson, which met three times a week as a required course. A native English teacher joined in the required English course once a week or every other week and conducted English lessons, along with a Japanese English teacher in charge. Most of these students would go on to the upper secondary school that is attached to the national university of education without taking an entrance examination. Therefore, unlike other *public lower secondary* schools, English classes conducted at the school did not focus on preparing for entrance examinations for upper secondary schools. In addition to this required course, some of the students took an elective English course.<sup>4</sup>

Regarding the out-of-class setting, the students were assigned homework regularly (i.e., reviewing and previewing lessons, working on grammar exercises, reading-aloud English texts, and so forth). Moreover, most of them attended a cram school and/or a private English conversation school, and a few of them studied English

with a private English tutor at home according to the background survey administered to the participants in 2006 (see Appendix A for the sample of the survey).<sup>5</sup>

The author has been working at this lower secondary school as a part-time English lecturer. This particular school was chosen on the basis of her observational data which suggested that the students at the school seemed to be aware of their own approach to English language learning since they have been prompted to reflect on and evaluate their learning English as well as other subjects (i.e., Japanese, Science) in each class. They were also considered to be able to provide reliable information on their strategy use since they were apt to diligently complete assigned tasks and were accustomed to submitting assignments regularly. In addition, the school encouraged teachers to conduct educational research, and thus the author was able to carry out several studies for an extended period at the school.

Prior to gathering data for each study, the author sought the school's permission from the vice principal<sup>6</sup> orally or in a written format (see Appendix B for the sample of the written format). In addition, at the onset of the data collection, the students were informed and assured that: 1) there were no right or wrong answers to any questions; 2) their responses would not affect their course grades; and 3) their data would be treated confidentially.

### 3.4 Definition of LLSs

As was described in 2.1, LLSs have been defined in various manners, and the variability in defining LLSs has led to confusion in interpreting LLS studies (Dörnyei, 2005; Gu, 1996). It is thus crucial to define LLSs clearly at the onset of an investigation. The author proposes the following operational definition of LLSs for the purposes of the present research by integrating Cohen (1998), Oxford (1990), and

Takeuchi (2003b):

Language learner strategies (LLSs)<sup>7</sup> are specific steps, actions, or mental operations consciously taken by a learner, which have the potential<sup>8</sup> to be used effectively in order to make language learning and language use easier, faster, more effective, more enjoyable, and/or more self-directed.

With this definition in mind, the four empirical studies were conducted by the author at the lower secondary school, and each of these studies is reported on in the ensuing chapters.

#### Notes

1. Such data cleaning was not carried out in the pilot survey (Study 1) since the survey was exploratory in nature and it attempted to elicit a variety of LLSs used by the students at the lower secondary school.
2. Wharton (2000) found some unique patterns of strategy use by bilingual FL learners in Singapore. For instance, the bilinguals reported *greater use of social strategies*, which might have been reinforced by their previous experiences of learning other languages.
3. Before being admitted to the lower secondary school, they had generally received 25 hours of English lessons per year at the elementary school.
4. There exist two English elective courses at the school: 1) *English conversation course*; and 2) *the STEP test preparation course* (see Note 20 in Chapter 2 for the explanation of the *STEP* test).

5. About 80% of them attended a cram school, and 10% of them attended a private English conversation school. About 4% of them had a private English tutor and studied English with him/her at home.
6. Professors at the national university of education hold the principalship at this lower secondary school. The daily routines and decisions are, however, processed by the vice principal.
7. As was noted in Chapter 1, the term *language learning strategies* or *learner strategies* has been recently replaced with the term *language learner strategies* by some prominent strategy researchers (Cohen & Macaro, 2007).
8. The author defines LLSs as the strategies which have the potential to be used effectively for language learning since the effectiveness of strategy use seems to vary according to a given task, the learner's learning style and/or, whether multiple strategies are used in combination, as was discussed in 2.1.

#### 4. Study 1

The literature review presented in Chapter 2 identified several important issues. One issue was that a valid and reliable questionnaire should be constructed for investigating strategy use by Japanese EFL learners at the lower secondary school level since there is no appropriate standardized questionnaire for them. Another issue was concerned with situational differences (i.e., inside and outside classroom settings). Although these differences seem to have some influences on learners' use of LLSs, they have not been thoroughly examined in the field of LLS research. In light of these issues, the present study was conducted for the purposes of: 1) eliciting various strategies used by Japanese students learning EFL at a lower secondary school; and 2) exploring the patterns of their strategy use inside and outside the classroom. Finally, based on the findings of this study, implications for developing a standardized questionnaire for these students are discussed.

#### 4.1 Method

##### 4.1.1 Participants

A total of 347 students learning EFL at the Japanese lower secondary school described in 3.3 participated in the present study. They were *beginning EFL learners* who had a relatively higher EFL proficiency than other lower secondary school learners. Table 4-1 presents the participants' basic information by their school year and gender. As shown in the table, they ranged from seventh to ninth graders, and the male-female ratio of the participants was approximately equal.

Table 4-1. Breakdown of the Participants

Grade	Male	Female	Total
7th	54	65	119
8th	56	59	115
9th	56	57	113
Total	166	181	347

##### 4.1.2 Instruments

An open-ended questionnaire was administered to the participants. In the questionnaire, they were asked to describe how they had generally learned English inside and outside the classroom respectively. They were requested to report on strategies in terms of the following language skills: vocabulary, grammar, pronunciation, speaking, writing, reading, listening, and test-taking. For each of the eight skills, they were given several examples of strategies so that they could have an idea of what they were expected to write in the questionnaire. The language in which these questionnaires were completed was their first language (i.e., Japanese) to ensure detailed and comprehensive descriptions. A multiple-choice questionnaire, which was developed based on the work of O'Malley and Chamot (1990) and Oxford (1990), was also administered to the participants to examine their metacognitive strategy use. This was done because it seemed to be difficult especially for learners at the lower secondary school level to describe metacognitive strategy use in an open-ended questionnaire. In the multiple-choice questionnaire, the participants were provided with a closed set of metacognitive strategies in non-technical terms and were asked to indicate which ones they generally used in their language learning. The contents of the

open-ended and the multiple-choice questionnaires were examined by two Japanese teachers of English working at a lower secondary school in terms of comprehensibility for lower secondary school students (see Appendix C for the sample of the questionnaires).

#### 4.1.3 Data Collection Procedure

The questionnaires were administered to the participants during the second semester of 2004 by their English teachers. The teachers were provided with a guideline beforehand, in which they were asked to inform their students that: 1) there were no right or wrong responses to any questions; 2) the results would not affect their grades; and 3) their names would be kept anonymous. The questionnaires required 30 to 40 minutes for the students to complete. They were allowed to ask their teachers technical questions about the questionnaire during the survey.

#### 4.1.4 Data Analysis

The KJ method (Kawakita, 1967), which is said to be similar to a grounded theory approach<sup>1</sup> (Kinoshita, 1999, p. 170), was employed for the analysis of the data obtained from the open-ended questionnaire. First, the author read through all the questionnaires and identified the descriptions that contained LLSs. Then, each description was recorded on a small card with the participant's identification code (i.e., his/her school year, student number, and gender). The cards with similar elements were later grouped together, and the underlying concept of each group was named by the author. Finally, the cards were counted for quantitative processing. To minimize the effects of subjectivity in identification and categorization, ten percent of the samples were randomly selected and checked by another researcher.<sup>2</sup> No considerable

discrepancy was found between the analysis of another researcher and the author.<sup>3</sup> Regarding the multiple-choice questionnaire, the number of items selected by the participants was counted to reveal which metacognitive strategies were commonly or less commonly employed by the lower secondary school students.

## 4.2 Results

### 4.2.1 General Results

In the open-ended questionnaire, a total of 6,373 descriptions were identified as pertaining to LLSs. These descriptions were divided into four strategy groups including cognitive, metacognitive, social-affective, and communication strategies by means of the KJ method. This grouping is coincidentally similar to the O'Malley and Chamot's (1990) three-way split, and thus the present study adopted the same names (i.e., cognitive, metacognitive, and social-affective strategies). In addition to classifying the strategies into four groups, the combined use of strategies, in which several types of strategies were used by a learner in a consecutive manner or at the same time while s/he was engaging in a language task/activity, was also identified.<sup>4</sup> Table 4-2 presents the number of the descriptions reported by the participants in terms of the four types of strategy use and the combined use of strategies. As shown in the table, the lower secondary school students tended to use cognitive strategies more often than the other types of strategies.

In the following subsections, results of data analyses will be presented in the following order: 1) strategies reported in each skill area; 2) patterns of skill-specific strategy use in relation to the situational variable (i.e., inside and outside the classroom); and 3) metacognitive strategies reported by the participants.

Table 4-2. The Number of Descriptions Reported by the Participants

Type of strategies	The number of descriptions
Cognitive strategies	4875
Metacognitive strategies	635
Social-affective strategies	330
Communication strategies	87
Combined use of strategies	446
Total	6,373

#### 4.2.2 Strategies in Each Skill Area

Table 4-3 shows a summary of the major strategies described by the participants in terms of each skill area. The results indicate that the lower secondary school students often resort to cognitive strategies more often than to the other types of strategies, regardless of the skill area. The students especially preferred “simple” strategies that would require fewer mental operations and would be easier for the students to use in contrast to “demanding” strategies that would be difficult for them to use. For example, in vocabulary-learning, most students appeared to use simple strategies such as “*writing down and/or reading aloud a word repeatedly*” and “*making a list of vocabulary*,” while few students seemed to employ demanding strategies such as “*using keywords*,” “*making association*,” and “*analyzing the word*.” Also in the grammar section, they often described simple strategies such as “*summarizing grammatical rules in a note*,” “*taking a memo*,” “*highlighting key points*,” and “*doing grammar exercises*” more frequently than demanding strategies such as “*transferring*” and “*deductive reasoning*.”

Table 4-3. A Summary of the Major Strategies Reported by the Participants

Skill	Strategy
Vocabulary-learning	Writing down and/or reading aloud a word repeatedly, Making a list of vocabulary, Learning a word in a context
Grammar-learning	Summarizing grammatical rules in a note, Taking a memo, Highlighting key points, Doing grammar exercises
Pronunciation-learning	Decoding by Japanese, Listening to CD, Reading aloud words and/or sentences
Speaking	Attending to pronunciation, Imitating other’s speech, Memorizing a speech, Practicing with others
Writing	Looking up unknown words in a dictionary, Borrowing expressions from a textbook, Attending to grammar and vocabulary
Reading	Inferring a meaning, Looking up unknown words in a dictionary, Translating English into Japanese
Listening	Taking a memo, Concentrating on listening, Guessing the content of the text
Test-taking	Memorizing vocabulary and English sentences, Doing exercises, Reviewing materials, Practicing (e.g., writing words and/or sentences)

Note. Strategies used in each skill area were listed in the descending order of the number of descriptions.

#### 4.2.3 Skill-Specific Strategy Use in Relation to Learning Settings

Strategy use in each skill area was also examined in relation to the learning settings (i.e., inside and outside the classroom) to grasp the patterns of strategies used

by the lower secondary school students. Table 4-4 shows the number of the skill-specific strategies self-reported by the participants according to each learning situation. In total, the number of vocabulary-learning strategies was the highest and that of listening strategies was the lowest. On the other hand, different patterns were identified according to the inside/outside distinction. First, regarding strategy use inside the classroom, they reported a larger number of speaking strategies and a smaller number of pronunciation-learning strategies. As for strategy use outside the classroom, more vocabulary-learning strategies and fewer listening and speaking strategies were reported. In short, the students' self-reports revealed different patterns of strategy use in relation to the two different learning settings.

Table 4-4. The Number of Skill-Specific Strategies Reported in Each Setting

Setting	V	G	P	S	W	R	L	Test <sup>a</sup>	Others <sup>a</sup>	Total
Inside	378	370	320	381	353	376	347	NA	193	2718
Outside	445	380	366	294	335	389	291	780	375	3655
Total	823	750	686	675	688	765	638	780	568	6373

Notes. V = Vocabulary-learning strategies; G = Grammar-learning strategies; P = Pronunciation-learning strategies; S = Speaking strategies; W = Writing strategies; R = Reading strategies; L = Listening strategies.

<sup>a</sup> The shaded region (showing the number of test-taking strategies and other strategies) is not focused on for the analysis in this section.

#### 4.2.4 Metacognitive Strategies

Table 4-5 summarizes the results of metacognitive strategies reported by the participants in the multiple-choice questionnaire. According to the table, many

participants selected items such as *"monitoring one's mistakes and learning from them"* and *"increasing the opportunities to use English."* The results indicate that the use of metacognitive strategies such as *"self-monitoring"* and *"organizing one's learning environments"* is common in these students. On the other hand, fewer students chose items such as *"making a plan for English language learning"* and *"evaluating one's approach to English language learning after lessons or self-study."* In other words, most of them are unlikely to employ *"planning"* and *"self-evaluating."*

Table 4-5. Metacognitive Strategies Reported by the Participants (N = 347)

Type of metacognitive strategies	Number	%
Monitoring one's mistakes and learning from them	163	47.0
Increasing the opportunities to use English	161	46.4
Setting some goals to study English	118	34.0
Evaluating the progress in English	81	23.3
Securing sufficient time for studying English	75	21.6
Making a plan for English language learning	61	17.6
Evaluating one's approach to English language learning	51	14.7

Note. Multiple answers were allowed in the questionnaire, and thus the participants marked all strategies applied to them.

Another aspect of metacognitive strategy use was identified in the open-ended questionnaire, which is the combined use of metacognitive and cognitive strategies. For instance, one student reported on the combined use of a metacognitive strategy (*"having a specific purpose"*) and a cognitive strategy (*"taking a memo"*) in the

open-ended questionnaire, as shown in Excerpt 1.

Excerpt 1 (9-F-Out)<sup>5</sup>

(When listening to English) *I usually write down “when”, “where”, “who”, and “why” on the memo . . .* (Metacognitive “having a specific purpose” plus Cognitive “taking a memo”).

(Translation and parentheses are added by the author.)

The above example shows that the student listens to English with a specific purpose and takes a memo systematically. It is true that most of the students reported just a single use of cognitive strategies, such as “taking a memo,” but a few students did report on the combined use of strategies, as shown in the excerpt above. Another example is shown in Excerpt 2 below. It is concerning an orchestration of a metacognitive strategy (“*monitoring*”) and a cognitive strategy (“*practicing*”) in learning new vocabulary:

Excerpt 2 (7-F-Out)

*I check the retention of new words by writing them down without looking at them. Then, I check the answers, and practice the words that I misspelled* (Metacognitive “*monitoring*” plus Cognitive “*practicing*”).

(Translation and a parenthesis are added by the author.)

As described in the above excerpt, the student first checks whether she has memorized new words, and subsequently, she focuses on the misspelled words and practices them

again. These findings indicate that some learners at the lower secondary school level can use strategies in a well-orchestrated manner.

### 4.3 Discussion

Table 4-6 displays a summary of the results obtained from the present study. This table shows the patterns of strategy use by the Japanese lower secondary school students of EFL. First of all, the students reported cognitive strategies most frequently among the four types of strategies. They especially reported strategies such as “*writing down and/or reading aloud a word repeatedly*,” “*looking up unknown words in a dictionary*,” and “*taking a memo*.” These strategies were less demanding than other cognitive strategies such as “*making association*,” “*using background knowledge*,” and “*analyzing and transferring*.” It thus can be claimed that learners at the lower secondary school level usually resort to simple cognitive strategies. Furthermore,

Table 4-6. A Summary of the Strategy Use Reported by the Participants

Type of strategy use		The number of descriptions	Type of strategies
General strategy use		Large	Simple cognitive strategies
		Small	Metacognitive strategies
Skill-specific strategy use		Large	Vocabulary-learning strategies
		Small	Listening strategies
Situation-specific strategy use	In-class	Large	Speaking strategies
		Small	Pronunciation-learning strategies
	Out-of-class	Large	Vocabulary-learning strategies
		Small	Listening strategies Speaking strategies

compared to a large number of cognitive strategies, these learners rarely described metacognitive strategy use, which is said to be a key for success in language learning (Chamot, 2004; Wenden, 2001).

Second, concerning the skill-specific strategies, the students reported vocabulary-learning strategies frequently and listening strategies infrequently. In other words, they reported strategy use more frequently in discrete tasks (i.e., vocabulary-learning) than in integrative ones (i.e., listening). This result can be supported by the claim made by O'Malley, Chamot, Stewer-Manzanares, Russo, and Küpper (1985, pp. 567-8) as follows:

[S]trategies were most frequently mentioned with discrete language tasks such as vocabulary and pronunciation, which may be less conceptually complex than integrative language tasks such as listening and making an oral presentation.

Third, the influence of situational differences on their strategy use was observed. While the students described the use of a larger number of speaking strategies inside the classroom, they reported *vocabulary-learning strategy use most frequently outside the classroom*. According to Hirano (2000), classroom activities seem to influence lower secondary school learners' strategy use. This means that their choice of strategies might be affected by the types of learning activities introduced by their teachers. The author thus assumes that speaking strategies were reported more often by the participants inside the classroom because the teachers might have introduced more speaking activities than any other types of activities inside the classroom. Outside the classroom, on the other hand, the students seemed to work on

vocabulary-learning harder than other types of language activities, as was indicated by a large number of vocabulary-learning strategies reported in the open-ended questionnaire. This may be because teachers might have encouraged their students to learn vocabulary outside the classroom setting rather than inside.

Finally, it is important to note that this study identified the orchestrated use of strategies by the lower secondary school students in the open-ended questionnaire. As was suggested by some LLS researchers (e.g., Anderson, 2005, 2008; Grenfell & Macaro, 2007; Gu, 2005), the orchestrated use of strategies is said to be more effective than single strategy use when learners engage in a language task. The present study provides examples of the orchestrated use of strategies by learners at the lower secondary school level. Further investigation on this type of strategy use by these learners should be carried out.

#### 4.4 Summary

This study was designed to elicit LLSs utilized by Japanese lower secondary school students of EFL and to examine the patterns of their strategy use in relation to learning settings (i.e., inside and outside the classroom) in preparing an item pool for the questionnaire to assess these students' strategy use. The major findings of this study were as follows: 1) these learners usually resorted to simple cognitive strategies such as "*repeating*," "*using a dictionary*," and "*taking a memo*," and the use of demanding cognitive strategies such as "*making association*" and "*analyzing the word*" and metacognitive strategies, especially "*planning*" and "*self-evaluating*," was not common in these learners; 2) their strategy use seemed to be skill-specific, and they described a large number of vocabulary-learning strategies and a small number of listening strategies; and 3) the patterns of their skill-specific strategy use were different

in terms of the two learning settings, and the patterns might be influenced by the teaching methods employed by the teachers.

Based on these findings, the author maintains that conventional questionnaires such as the *SILL*, which includes some unfamiliar strategies for learners at the lower secondary school level and is neither skill-specific nor situation-specific, are not suitable for surveying the strategy use by Japanese lower secondary school students of EFL. A new standardized questionnaire therefore should be developed to investigate their strategy use. This will be the research agenda for the next chapter.

#### Notes

1. A grounded theory approach, whose procedure is elaborated on in 7.1.1, has been employed frequently in recent qualitative research. See Gan et al. (2004) for an example of LLS study using the grounded theory approach.
2. Ten percent of the samples were selected and checked for the inter-rater reliability based on the suggestion of Loewen and Philip (2006).
3. For the identification and the categorization of strategies, the consensus between another researcher and the author was 87% and 92%, respectively.
4. Yabukoshi and Takeuchi's (2004, p.5) diary study identified the following two types of combined use of strategies:
  - a) successive use of strategies: several types of strategies are used by a learner in a consecutive manner while s/he is engaging in a language task/activity, or (not engaging in it but) thinking about his/her language learning; and
  - b) simultaneous use of strategies: several types of strategies are applied by a learner at the same time while s/he is working on a language task/activity, or

- (not working on it but) thinking about his/her language learning.
5. The coding stands for the school year, gender, and learning setting as follows: "9" indicates a ninth grade student; "F" indicates female; and "Out" indicates the strategy use outside the classroom.

## 5. Study 2

As was noted in the literature review, no valid and reliable strategy questionnaire is available to those learning EFL at the lower secondary school level in the Japanese EFL context. Without such a questionnaire, we cannot objectively assess their strategy use, and consequently their strategy use has yet to be explored. Thus, the study in this chapter has two objectives: 1) to develop a valid and reliable questionnaire to examine the strategy use by Japanese lower secondary school learners of EFL in two learning settings (i.e., inside and outside classroom); and 2) to explore the type and the frequency of their strategy use in these two settings.

### 5.1 Procedure

The strategy questionnaire was systematically developed through the following three processes: 1) selecting the questionnaire items based on results obtained both in Study 1 and in previous LLS studies; 2) conducting a pilot examination of the items; and 3) carrying out a main study to reveal factors (i.e., types of strategies) underlying the questionnaire and examine the reliability and validity of the questionnaire by means of an exploratory and a confirmatory factor analysis (for an overview of such processes, see Dörnyei, 2003 and Kamahara et al., 1998).

#### 5.1.1 Selecting the Questionnaire Items

To examine the strategy use in terms of inside and outside the classroom settings, the questionnaire was designed to consist of the following two parts: Part A (strategy use inside the classroom); and Part B (strategy use outside the classroom). To ensure content validity of the questionnaire, items were selected based on: 1) the open-ended and closed-end data gathered from the students at the lower secondary

school in Study 1; and 2) the findings of previous LLS studies conducted with Japanese lower secondary school students of EFL (e.g., Hirano, 2000; Hojo, 1998).

#### 5.1.2 Pilot Study

The pilot questionnaire was administered to 82 students at the lower secondary school. In the item analysis, descriptive statistics were calculated to see if individual items showed a ceiling or floor effect.<sup>1</sup> Although items with ceiling or floor effects have been found inappropriate for an exploratory factor analysis (Oshio, 2004), they are important to us in understanding the learners' strategy use since these are the strategies used highly frequently or infrequently by the learners. The author therefore did not remove these items from the questionnaire after the item analysis. In addition, correlation analyses were conducted between individual items to reveal the items showing high correlations (i.e., a correlation coefficient of .50 and higher).<sup>2</sup> To prevent redundancy, one of the highly correlated items, which was also similar to another in terms of the content, was deleted from the questionnaire.

After the item analysis, 58 items for inside the classroom (Part A) and 66 items for outside the classroom (Part B) were included in the questionnaire (Ver. 1.0) (Appendix D). The frequency was measured by using a five-point Likert scale ranging from one (never use) to five (always use). These questionnaire items were reviewed by two Japanese teachers of English at lower secondary school, who had received post-graduate training in TESOL, to check the comprehensibility of these items for lower secondary school students. In addition, a background survey was attached to the strategy questionnaire to gather participants' demographic information such as gender and overseas experiences (see Appendix A).

### 5.1.3 Main Study

#### 5.1.3.1 Participants

A total of 315 students (45% males and 55% females) participated in the main study (Table 5-1). They consisted of 121 eighth graders (nearly 40%) and 194 ninth graders (more than 60%) learning EFL at the lower secondary school. Among the ninth graders, 82 students were those who had taken part in the pilot study. The data obtained in the pilot study were also used for the main study since the wording of the strategy items was identical. Seventh graders were not included in the present study because they had only recently enrolled in the school at the time of data collection (May 2006), and they might not have had an ample opportunity to use LLSs due to a paucity of English language learning experiences.

Table 5-1. The Number of the Participants According to Their Grade and Gender

Grade	Male	Female	Total
8th	60	61	121
9th	83	111	194 <sup>a</sup>
Total	143	172	315

<sup>a</sup> 82 students who had participated in the pilot study (5.1.2) were also included.

#### 5.1.3.2 Data Collection and Analysis

The questionnaire (Ver. 1.0) was administered to the participants by their English teachers during a regular class period in May 2006. Prior to administration, the teachers were given details on how to administer the questionnaire. The students were informed by the teachers that questions did not have right or wrong answers, and that their responses would not affect their grades. They were also assured by the teachers

that their anonymity was secured. The questionnaire required 30 to 40 minutes for the participants to complete.

As was mentioned in 3.3, data obtained from the students who had spent more than one year abroad or who are using English at home were excluded from the data analyses because these students' strategy use may be different from other students' (Wharton, 2000). The questionnaires that were not answered properly (e.g., those containing too many missing values) were also deleted from the analyses. Accordingly, the number of the available data sets was reduced to 281. For data analyses, *SPSS 13.0* was used.

First, exploratory factor analysis was conducted to reveal factors (i.e., types of strategies) underlying the questionnaire and to examine the reliability of each subscale. Before conducting the factor analysis, items with ceiling or floor effects were removed from the analysis since they were said to be inappropriate for the factor analysis as is suggested by Oshio (2004).<sup>3</sup> For the factor analysis, maximum-likelihood method with promax rotation was used. To decide the number of factors, the author used a scree plot in which both the eigenvalues greater than 1.0 and cumulative contribution ratios were utilized as signals of the threshold. Factor loadings greater than .40 were considered acceptable for a simple structure.

Second, confirmatory factor analysis was performed to validate the factor structures (i.e., the hypothesized models of strategy use inside and outside the classroom) derived from the exploratory factor analysis. In evaluating the model fit, a number of standard fit indices (i.e., chi-square value, normed chi-square value, goodness of fit index, adjusted goodness of fit index, comparative fit index, and so forth) were computed by using *AMOS 15.0* and were assessed based on the acceptable thresholds suggested in the literature (i.e., Byrne, 2001; Hair, Anderson, Tatham, &

Black, 1998; Koizumi & In'nami, 2003; Oshio, 2005; Tseng, Dörnyei, & Schmitt, 2006).

Third, descriptive statistics of the frequency of strategy use were calculated with the primary strategy types uncovered by the factor analyses, along with the subtypes of strategies, for the purpose of profiling the strategy use inside and outside the classroom by the lower secondary school learners.

In addition to the questionnaire, the author carried out classroom observations and informal interviews with English teachers at the lower secondary school to gain insight into the learners' strategy use and to supplement data obtained from the questionnaire.

## 5.2 Results and Discussion

This section presents and discusses the results of: 1) the exploratory and confirmatory factor analyses to reveal the factors underlying the strategy questionnaire; and also 2) the descriptive statistics to profile the strategy use by the Japanese lower secondary school students of EFL.

### 5.2.1 Factors Underlying the Questionnaire

#### 5.2.1.1 Exploratory Factor Analysis

*Part A: Strategy Use Inside the Classroom:* Five factors (i.e., types of strategies) were extracted for the lower secondary school students' strategy use inside the classroom. The total percentage of variance accounted for by these five factors was 54.7%. The five factors were labeled according to the items included therein by the author. The validity of the labeling was checked by another researcher. Table 5-2 shows these factors, along with the number of items and the Cronbach's alpha for each

factor.<sup>4</sup> The alpha coefficients indicate satisfactorily high internal consistency for each subscale. The factor matrix is presented in Table 5-3.

Table 5-2. Factors for Strategy Use Inside the Classroom

Factor	Type of strategies	Item	Alpha
Factor I <sup>a</sup> -1	Strategies for speaking practice	9	.83
Factor I-2	Strategies for vocabulary & sentence memorization	5	.77
Factor I-3	Strategies for comprehension	5	.80
Factor I-4	Strategies for retention while reading aloud	5	.84
Factor I-5	Translation & simplification strategies	4	.71

<sup>a</sup> "I" stands for strategies used "Inside" the classroom.

Items in Factor I-1 are concerned with speaking strategies employed by the learners to improve their speaking abilities. For instance, they listen to their native English teacher's pronunciation carefully and try to imitate his/her pronunciation (Items I-19 and I-21). In addition, they practice English with their native English teacher or classmates (Items I-24 and I-25). Furthermore, while speaking, they pay attention to articulation and grammatical accuracy, and try to use gestures to more precisely convey their message (Items I-28, I-22, and I-26). In addition to such speaking practices, the learners attempt to use new words and grammatical rules to make English sentences (Items I-7 and I-12). This factor, therefore, can be referred to as "*strategies for speaking practice.*"

Table 5-3. Factor Matrix for the 28 Strategies Used Inside the Classroom

	F1-1	F1-2	F1-3	F1-4	F1-5	M	SD
<b>Factor I-1: Strategies for speaking practice (<math>\alpha = .83</math>)</b>							
I-24 Trying to speak English with a native English teacher as much as possible	0.82	-0.02	-0.04	-0.01	-0.06	2.80	1.14
I-19 Listening to a native English teacher's pronunciation and imitating his/her pronunciation	0.76	-0.13	-0.07	0.13	-0.09	3.03	1.34
I-21 Paying attention to pronunciation and intonation while speaking	0.60	-0.06	0.19	0.10	-0.08	3.17	1.22
I-28 Trying to speak English with a loud voice without hesitating	0.54	0.02	-0.05	0.00	0.13	2.70	1.04
I-7 Trying to use new words while speaking and writing	0.52	0.15	0.06	-0.02	-0.21	2.85	1.17
I-22 Paying attention to grammar while speaking	0.52	-0.03	0.23	0.04	-0.09	3.19	1.16
I-25 Practicing English conversation with friends	0.47	-0.04	-0.17	0.15	0.15	2.17	1.10
I-26 Using gestures while speaking	0.46	-0.04	0.12	-0.33	0.36	2.56	1.20
I-12 Making English sentences by using new grammar	0.45	0.10	-0.14	0.16	0.01	2.56	1.20
<b>Factor I-2: Strategies for vocabulary &amp; sentence memorization (<math>\alpha = .77</math>)</b>							
I-1 Writing a new word many times	-0.21	0.90	0.05	-0.05	-0.04	2.72	1.31
I-11 Writing a new sentence many times	0.02	0.71	-0.02	0.07	-0.12	2.62	1.31
I-4 Reading aloud a new word while writing it	0.16	0.63	-0.08	-0.05	0.18	2.80	1.40
I-15 Doing grammar exercises by using grammar workbooks	0.17	0.49	0.07	-0.17	0.06	3.26	1.35
I-10 Reviewing new words by looking at vocabulary lists	-0.05	0.40	0.01	0.17	0.09	2.49	1.47
<b>Factor I-3: Strategies for comprehension (<math>\alpha = .80</math>)</b>							
I-37 Skimming a text to get the main ideas (rather than paying attention to the meaning of every word) while reading English texts	-0.07	0.03	0.80	-0.12	0.06	3.57	1.09
I-48 Trying to get the main ideas (rather than paying attention to the meaning of every word) while listening to English	0.03	0.11	0.69	-0.10	0.05	3.48	1.10
I-44 Guessing the contents based on the words and sentences which I understand while listening to English	-0.09	0.02	0.67	0.07	0.00	3.55	1.22
I-40 Guessing the contents based on the words and sentences which I understand while reading English texts	-0.04	-0.24	0.56	0.29	0.12	3.62	1.16
I-46 Trying to concentrate on listening to English and to avoid irrelevant distractions	0.14	0.10	0.46	0.07	-0.07	3.59	1.15
<b>Factor I-4: Strategies for retention while reading aloud (<math>\alpha = .84</math>)</b>							
I-39 Highlighting keywords in the English texts while reading	0.01	-0.16	-0.05	0.75	0.05	3.03	1.25
I-41 Memorizing English texts in the textbook and reciting them	0.11	0.13	0.11	0.60	-0.12	3.04	1.37
I-43 Reading aloud English texts in a various way	0.15	0.04	-0.03	0.60	0.11	2.71	1.26
I-38 Reading aloud English sentences	0.19	0.07	0.05	0.52	0.12	3.21	1.28
I-50 Dictating English that I have listened to	0.12	0.21	0.09	0.43	-0.04	2.85	1.23
<b>Factor I-5: Translation &amp; simplification strategies (<math>\alpha = .71</math>)</b>							
I-34 Translating Japanese into English literally when writing English sentences	-0.09	0.17	-0.08	0.16	0.61	2.80	1.14
I-31 Writing simple sentences without using difficult words and sentence structures	-0.20	-0.09	0.10	0.03	0.59	3.40	1.05
I-36 Translating English sentence word by word into Japanese when reading English texts	-0.10	0.04	0.06	0.23	0.53	3.08	1.19
I-27 Using Japanese to substitute for unknown English expressions while speaking English	0.25	-0.01	0.02	-0.11	0.50	2.71	1.19
Rotated Eigenvalue	8.07	2.13	2.00	1.61	1.49		
Total % variance	28.82	36.42	43.56	49.31	54.65		

Items in Factor I-2 are related to rote-memorization strategies used to learn new vocabulary and sentence structures. For example, the learners write a new word and/or sentence repeatedly (Items I-1 and I-11), or read a new word aloud while writing it (Item I-4). They also review new words by looking at vocabulary lists (Item I-10). In addition, they do grammar exercises (i.e., pattern-practicing, cloze exercises) by using grammar workbooks that may help them learn and retain new words and target sentences (Item I-15). These five strategies thus can be termed “*strategies for vocabulary and sentence memorization.*”

Items in Factor I-3 are associated with strategies used to comprehend materials. For example, the learners skim a text while reading, or try to get main ideas while listening (Items I-37 and I-48). They also guess the meaning of materials based on the words and sentences that they understand (Items I-44 and I-40). Moreover, to improve their listening comprehension, they try to concentrate on the listening activity and avoid distractions (Item I-46). Accordingly, this factor can be called “*strategies for comprehension.*”

Items in Factor I-4 are broadly related to strategies used for reading English texts aloud. For instance, the learners read aloud English texts in various ways and recite them to memorize and internalize the sentence structures (Items I-38, I-43, and I-41). They also highlight keywords in English texts to retain them more effectively (Item I-39). Classroom observations by the author ascertained that several students had underlined some words while reading aloud some English texts. In addition, dictation was included in this factor (Item I-50). Although dictation seemed to be irrelevant to reading-aloud activities, it was often conducted following reading-aloud activities in the classrooms. Item I-50 was thus included in this factor. Accordingly, Factor I-4 is named “*strategies for retention while reading aloud.*”

Finally, Factor I-5 includes four strategies related to translation and simplification of messages to avoid communication breakdowns. For example, the learners substitute L1 (i.e., Japanese) for unknown English expressions while speaking, or they literally translate Japanese into English when they write English sentences (Items I-27 and I-34). They also translate English into Japanese when reading English texts (Item I-36). Furthermore, they try to use simple words and sentence structures while writing an essay or a speech draft (Item 31). Hence, Factor I-5 can be referred to as “translation and simplification strategies.”

*Part B: Strategy Use Outside the Classroom:* Concerning strategy use outside the classroom, again, five factors (i.e., types of strategies) were extracted by the factor analysis with highly acceptable internal consistency for each subscale (Table 5-4). The total percentage of variance accounted for by these five factors was 51.5%. These five factors were labeled according to the items included therein by the author. The validity of the labeling was checked by another researcher. The factor matrix is presented in Table 5-5.

Table 5-4. Factors for Strategy Use Outside the Classroom

Factor	Type of strategies	Item	Alpha
Factor O <sup>a</sup> -1	Follow-up learning & metacognitive strategies	16	.88
Factor O-2	Strategies for speaking practice	4	.77
Factor O-3	Strategies for comprehension	4	.76
Factor O-4	Strategies for vocabulary & sentence memorization	3	.81
Factor O-5	Translation & simplification strategies	4	.72

<sup>a</sup> “O” stands for strategies used “Outside” the classroom.

Table 5-5. Factor Matrix for the 31 Strategies Used Outside the Classroom

	FO-1	FO-2	FO-3	FO-4	FO-5	M	SD
<b>Factor O-1: Follow-up learning &amp; metacognitive strategies (<math>\alpha = .88</math>)</b>							
O-57	0.78	-0.19	-0.17	0.08	0.01	3.09	1.36
O-58	0.68	-0.04	-0.16	-0.01	0.16	3.09	1.27
O-59	0.66	-0.07	0.08	0.06	-0.07	3.19	1.22
O-63	0.62	0.13	0.15	-0.12	-0.22	2.97	1.40
O-15	0.54	0.00	0.07	-0.04	0.13	3.16	1.30
O-33	0.52	0.06	0.04	-0.05	0.03	2.90	1.18
O-44	0.52	0.10	-0.01	0.07	-0.01	2.99	1.32
O-62	0.51	0.20	-0.04	-0.14	0.00	2.42	1.21
O-35	0.50	-0.21	0.39	0.04	-0.02	3.61	1.18
O-53	0.49	0.19	0.02	-0.07	-0.03	2.86	1.21
O-65	0.47	-0.12	0.09	0.06	0.06	3.36	1.28
O-46	0.46	0.32	-0.15	0.01	0.01	2.65	1.20
O-64	0.46	0.25	-0.06	-0.11	0.09	2.50	1.21
O-14	0.44	0.03	0.17	0.03	0.04	2.92	1.20
O-13	0.44	-0.03	0.09	0.16	-0.04	2.98	1.36
O-7	0.43	0.07	0.08	0.09	0.05	2.92	1.13
<b>Factor O-2: Strategies for speaking practice (<math>\alpha = .77</math>)</b>							
O-28	0.15	0.71	-0.16	-0.05	0.06	2.24	1.12
O-29	-0.21	0.70	0.23	0.01	0.08	2.58	1.25
O-27	0.09	0.64	-0.02	0.14	-0.10	2.76	1.19
O-31	0.07	0.50	0.09	0.12	-0.08	2.79	1.18
<b>Factor O-3: Strategies for comprehension (<math>\alpha = .76</math>)</b>							
O-43	-0.02	0.04	0.69	-0.05	0.03	3.76	1.07
O-51	-0.06	0.15	0.68	0.00	0.00	3.57	1.14
O-47	0.12	-0.05	0.60	-0.04	-0.03	3.79	1.11
O-40	0.01	-0.01	0.55	0.06	0.07	3.66	1.06
<b>Factor O-4: Strategies for vocabulary &amp; sentence memorization (<math>\alpha = .81</math>)</b>							
O-6	-0.14	0.14	-0.03	0.89	0.00	3.24	1.31
O-4	-0.07	-0.02	-0.01	0.76	0.02	3.39	1.38
O-41	0.19	0.02	0.01	0.59	0.00	3.26	1.28
<b>Factor O-5: Translation &amp; simplification strategies (<math>\alpha = .72</math>)</b>							
O-37	0.01	0.08	-0.02	0.05	0.75	2.95	1.18
O-39	0.09	0.00	0.01	0.04	0.60	3.15	1.19
O-34	-0.09	-0.04	0.25	-0.08	0.56	3.35	1.16
O-9	0.08	-0.06	-0.07	-0.01	0.53	3.38	1.33
Rotated Eigenvalue	8.80	2.24	1.88	1.59	1.45		
Total % variance	28.39	35.62	41.69	46.83	51.51		

Items in Factor O-1 are related to follow-up learning and managing learning outside the classroom. For instance, the learners review lessons to follow up classroom instruction (Items O-58 and O-59). They also preview lessons to keep up with English classes (Item O-57). When they review or preview lessons, they read aloud English texts or repeatedly write new sentences to memorize and internalize the sentence structures (Items O-44, O-46, and O-13). They also attempt to learn sentence structures by doing pattern practices, by translating Japanese into English, and by dictating English sentences (Items O-35, O-15, and O-53). Some learners attempt to use new words and grammatical rules to make English sentences (Items O-7, O-33, and O-14). In addition to actually practicing English, the learners use metacognitive strategies to regulate their learning outside the classroom (Items O-63, O-62, and O-64). They also manage their learning by employing social strategies to disentangle their difficulty learning English (Item O-65). Accordingly, Factor O-1 can be named *"follow-up learning and metacognitive strategies."*

Items in Factor O-2 are broadly concerned with speaking strategies used by the learners to improve their speaking abilities and to keep conversations going. For instance, they practice English with their friends and, *if they can find, with a native speaker of English* (Items O-27 and O-28). They also pay attention to articulation and try to use gestures while speaking in order to convey their messages more clearly (Items O-31 and O-29). These items are similar to those included in Factor I-1. This factor, therefore, can be referred to as *"strategies for speaking practice."*

The four items included in Factor O-3 are the same as those in Factor I-3, which are associated with reading or listening strategies used to comprehend materials. For example, the learners skim a text while reading English, or try to get main ideas

while listening to English (Items O-51 and O-40). They also guess the meaning of materials based on the words and sentences that they understand (Items O-43 and O-47). Accordingly, this factor can be labeled *"strategies for comprehension."*

Factor O-4 consists of three items related to rote-memorization strategies used to learn new words and sentences as those found in Factor I-2. For example, the learners read aloud a new word and/or sentence (Items O-6 and O-41). They also read aloud a new word while writing it for retention (Item O-4). Factor O-4 therefore is named *"strategies for vocabulary and sentence memorization."*

Lastly, Factor O-5 is made up of items concerning translation and simplification of messages that are similar to those included in Factor I-5. For instance, the learners use L1 for writing and reading English sentences (Items O-37 and O-39). They also try to use simple words and sentence structures while writing an essay or a speech draft (Item O-34). Furthermore, when memorizing new words, they start with easier words, that is, short spelling words (Item O-9). Factor O-5 is thus termed *"translation and simplification strategies."*

### 5.2.1.2 Confirmatory Factor Analysis

The exploratory factor analysis revealed five factors for strategy use inside the classroom and five for outside the classroom. Confirmatory factor analysis was then conducted to validate the factor structures derived from the exploratory factor analysis. First, a five-factor model was estimated for strategy use inside the classroom representing: 1) *"strategies for speaking practice"*; 2) *"strategies for vocabulary and sentence memorization"*; 3) *"strategies for comprehension"*; 4) *"strategies for retention while reading aloud"*; and 5) *"translation and simplification strategies."* The factor structure is illustrated in Figure 5-1, and the fit indices are shown in Table 5-6

with the levels of appropriate fit. According to the table, the chi-square statistic did not indicate adequate fit. However, it has been claimed in the literature (e.g., Byrne, 2001; Hsiao & Oxford, 2002; Tseng et al., 2006) that the chi-square statistic is sensitive to sample size and may be inaccurate with large sample size (i.e., greater than 200). Thus, the normed chi-square value ( $\chi^2/df$ ) was computed because this value is less sensitive to sample size (Byrne, 2001; Woodrow, 2005). According to Koizumi and In'nami (2003), a value within the region of 2.0 indicates an excellent fit to the data, and a value of less than 3.0 is acceptable (Woodrow, 2005). The normed chi-square value for the five-factor model was 1.76, suggesting an excellent fit. The following fit indices were also computed to evaluate the model: goodness of fit index (GFI), adjusted goodness of fit index (AGFI), incremental fit index (IFI), comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA). Among these fit indices, the RMSEA value (.055) was found to be excellent. Generally, values less than .08 indicate an acceptable fit (Byrne, 2001; Hair et al, 1998; Tseng et al., 2006). The other five fit-indices (i.e., GFI, AGFI, IFI, CFI, and TLI) showed marginal values to the thresholds generally accepted in the literature. In addition, the GFI value (.85) was greater than the AGFI value (.82), which is recommended (Koizumi & In'nami, 2003; Oshio, 2005). According to these results, the model indicates a relatively good fit to the data. It thus can be claimed that the five-factor structure constructed by the exploratory factor analysis is valid for the strategy use, inside the classroom, by the Japanese lower secondary school students.

Table 5-6. Fit Indices for the Five-Factor Models of Strategy Use Inside and Outside the Classroom

Fit index	Level of acceptable fit <sup>a</sup>	Fit index for the five-factor model (Inside) ( $n = 247$ ) <sup>b</sup>	Fit index for the five-factor model (Outside) ( $n = 255$ ) <sup>b</sup>
Chi-square value	No significant (good)	597.27 ( $p < .001$ ) (poor) <sup>c</sup>	750.37 ( $p < .001$ ) (poor) <sup>c</sup>
Normed chi-square value	< 2.0 (excellent) < .30 (acceptable)	1.76 (excellent)	1.77 (excellent)
GFI	> .90 (good)	.85 (marginal)	.84 (marginal)
AGFI	> .90 (good)	.82 (marginal)	.81 (marginal)
	GFI $\geq$ AGFI (good)	GFI $\geq$ AGFI (good)	GFI $\geq$ AGFI (good)
IFI	> .90 (good)	.89 (marginal)	.87 (marginal)
CFI	> .90 (good)	.89 (marginal)	.86 (marginal)
TLI	> .90 (good)	.88 (marginal)	.86 (marginal)
RMSEA	< .05 (excellent) < .08 (acceptable) > .10 (poor)	.055 (very good)	.055 (very good)

Notes. GFI = Goodness of fit index; AGFI = Adjusted goodness of fit index; IFI = Incremental fit index; CFI = Comparative fit index; TLI = Tucker-Lewis index; RMSEA = Root mean square error of approximation.

<sup>a</sup> The levels of acceptable fit were based on Byrne (2001), Hair et al. (1998), Koizumi and In'nami (2003), Oshio (2005), and Tseng et al. (2006).

<sup>b</sup> Each sample size was reduced from 281 to 247 and to 255 respectively since the data containing missing values had to be deleted from the analyses using *AMOS*.

<sup>c</sup> As was mentioned in the literature (e.g., Byrne, 2001; Hsiao & Oxford, 2002; Tseng et al., 2006), the chi-square value may not be accurate with large sample sizes (i.e., greater than 200). In this case, it is recommended to turn to other fit indices to evaluate the model fit.

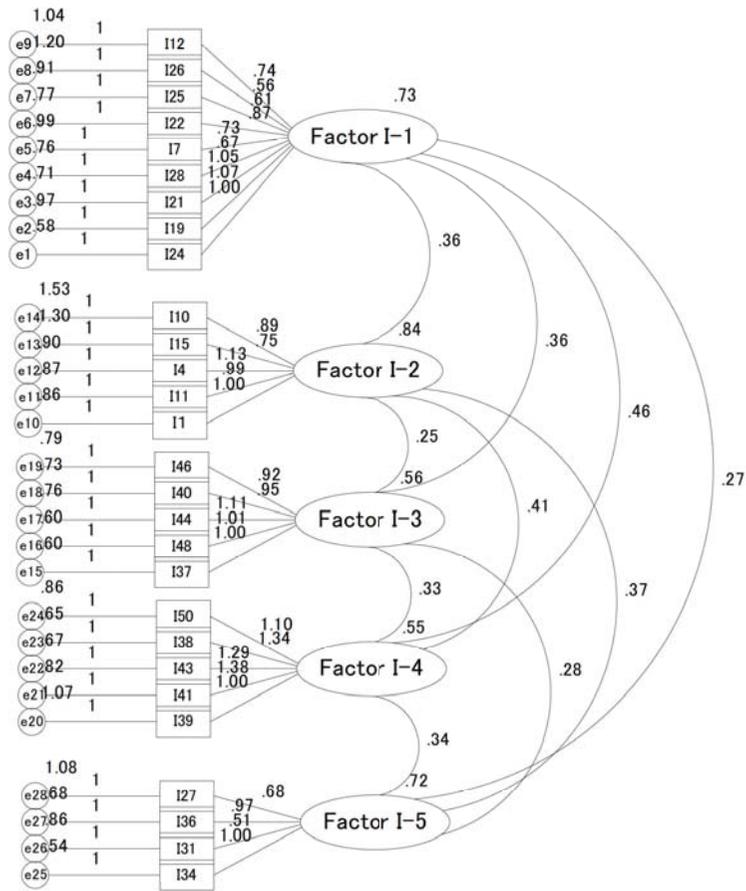


Figure 5-1. Confirmatory factor analysis for the five-factor model of strategy use inside the classroom.

A five-factor model was then estimated for strategy use outside the classroom representing: 1) “*follow-up learning and metacognitive strategies*”; 2) “*strategies for speaking practice*”; 3) “*strategies for comprehension*”; 4) “*strategies for vocabulary and sentence memorization*”; and 5) “*translation and simplification strategies.*” The model is presented in Figure 5-2, and the fit indices are in Table 5-6, along with the acceptable thresholds. The results showed similar patterns to the ones obtained for the five-factor model for strategy use inside the classroom. For instance, although the chi-square statistic showed inadequate fit, the normed chi-square value ( $\chi^2/df$ ) was 1.77, which suggests an excellent fit to the data. Additionally, the RMSEA value (.055) was excellent, compared to the acceptable value suggested in the literature. The other five fit indices (i.e., GFI, AGFI, IFI, CFI, and TLI) were values marginal to the acceptable levels recommended in the literature. Furthermore, the GFI value (.84) exceeded the AGFI value (.81), as was recommended in the literature (Koizumi & In’nami, 2003; Oshio, 2005). These results indicate that the model shows a relatively good fit to the data. In other words, the five-factor structure extracted by the exploratory factor analysis is valid for the strategy use, outside the classroom, by the Japanese lower secondary school students.

## 5.2.2 Profile of Strategy Use

### 5.2.2.1 Items Showing the Ceiling Effect and the Floor Effect

This subsection presents results regarding the type and the frequency of strategy use reported by the participants. As was described in 5.1.3.2, before conducting the exploratory factor analysis, items showing ceiling or floor effects were deleted from the analysis as is suggested by Oshio (2004). However, these items seem to be necessary for us to understand the learners’ strategy use, as they are the strategies

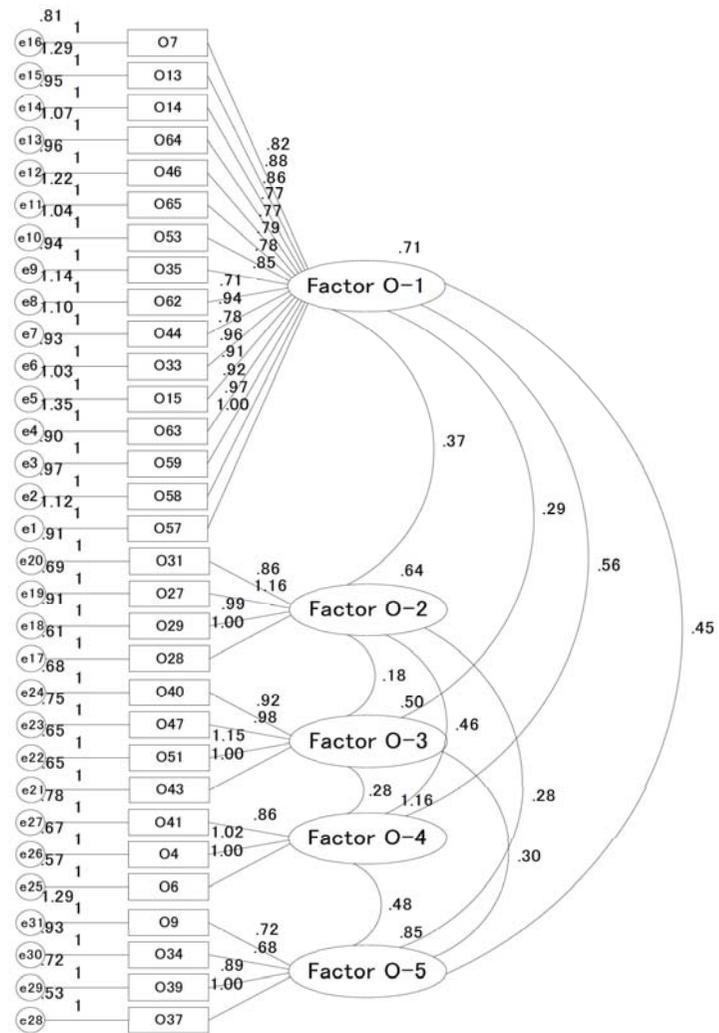


Figure 5-2. Confirmatory factor analysis for the five-factor model of strategy use outside the classroom.

that were frequently or rarely employed by the participants. In other words, these items may indicate the typical patterns of strategy use by the lower secondary school students. It thus seems worth mentioning these items in this subsection.<sup>5</sup>

Table 5-7 presents items that show ceiling effects. According to the table, the participants often employed Items I-35 and O-38 (“using dictionaries when writing English sentences”) both inside and outside the classroom. This indicates that the learners at the lower secondary school level often resort to self-learning resources such as dictionaries when they engage in writing tasks. The participants also reported frequent use of Items O-1 (“writing a new word many times”), O-17 (“doing grammar exercises by using grammar workbooks”), and O-18 (“memorizing new grammatical rules”) outside the classroom. These items are related to rote-memorization strategies, and the highly frequent use of these strategies is typical of Asian EFL learners (Gan,

Table 5-7. Items Showing Ceiling Effects

Setting	Item	<i>M</i>	<i>SD</i>
Inside the class	I-35 looking up unknown words in dictionaries when writing English sentences	4.12	1.07
Outside the class	O-1 writing a new word many times to learn it	3.79	1.25
	O-17 doing grammar exercises by using grammar workbooks	4.02	1.16
	O-18 memorize new grammatical rules	3.90	1.12
	O-38 looking up unknown words in dictionaries when writing English sentences	4.19	1.03
	O-48 paying attention to the beginning word of the sentence while listening to English	3.88	1.14

2004; Politzer & McGroarty, 1985). Additionally, Item O-48 (“attending to the beginning word of the sentence while listening”) was reported by the participants frequently outside the classroom. This may reflect the fact that one of the English teachers at the lower secondary school often encouraged her students to pay attention to the beginning word of the sentence in listening activities. In other words, the teacher’s advice may be related to the students’ strategy use.

The items showing floor effects are presented in Table 5-8. As the table indicates, the lower secondary school students scarcely utilized Items I-53 and O-56 (“using PC software and/or the Internet to learn English”) both inside and outside the classroom. Regarding the strategy use inside the classroom, this may be because most English teachers at the school did not use a CALL (Computer Assisted Language Learning) classroom, and the students therefore had few opportunities to use PC

Table 5-8. Items Showing Floor Effects

Setting	Item		<i>M</i>	<i>SD</i>
Inside the class	I-2	making flashcards to learn new words	1.90	1.14
	I-17	writing down how to pronounce a new word in katakana phonetic scripts	2.33	1.37
	I-53	using PC software and/or the Internet to learn English	1.60	0.92
	I-54	Planning how to learn English	2.01	1.08
Outside the class	O-56	using PC software and/or the Internet to learn English	1.97	1.22
	O-60	reading English paperbacks and/or English newspaper	2.13	1.27

software and/or the Internet during English classes.<sup>6</sup> Regarding the out-of-class strategy use, many students might not be familiar with the use of computers and the Internet and be unable to use this strategy. The participants also did not frequently employ two vocabulary-learning strategies inside the classroom. One was Item I-2 (“making flashcards to learn new words”). Although this strategy was included in the questionnaire based on Hirano (2000) and Hojo (1998), the participants of this study utilized this strategy infrequently. Another strategy was Item I-17 (“writing down how to pronounce a new word”). This strategy was listed in the questionnaire based on the open-ended data obtained in Study 1, which suggested that seventh graders often described the use of this strategy. However, the participants of the present study reported rarely using this strategy use, perhaps because they were eighth and ninth graders and they might stop using this strategy as they made progress in English proficiency. In addition, Item I-54 (“planning how to learn English”) was not frequently used by the participants inside the classroom. The item, which is one of the metacognitive strategies, was included in the questionnaire because metacognitive strategy use is found to be essential for successful language learning (Chamot, 2004; Wenden, 2001) and this strategy was also listed in Hojo’s (1998) questionnaire. The use of this strategy, however, was not frequent in the present study, which is in accord with Study 1. Finally, Item O-60 (“reading English paperbacks and/or English newspaper”) was infrequently used by the participants outside the classroom. This may be because the use of this strategy requires high English proficiency to read such English materials and, thus, not all students can use this strategy. In Study 1, this strategy use was mainly described by some ninth graders and bilingual students.<sup>7</sup>

### 5.2.2.2 Six Types of Strategies

The factor matrixes for the strategies used inside and outside the classroom (Tables 5-3, 5-5) were combined into one table and arranged in descending order of the frequency of strategy use (see Table 5-9). The table shows that the same factors (i.e., strategy types) were identified both inside and outside the classroom. These factors were: A) “strategies for comprehension” (Factors I-3 and O-3), B) “translation and simplification strategies” (Factors I-5 and O-5), C) “strategies for vocabulary and sentence memorization” (Factors I-2 and O-4), and D) “strategies for speaking practice” (Factors I-1 and O-2). Additionally, different types of factors were identified in the two learning settings: E) “strategies for retention while reading aloud” (Factor I-4), and F) “follow-up learning and metacognitive strategies” (Factor O-1). In this subsection, these six types of strategies were discussed in relation to the two learning settings (i.e., in-class and out-of-class).

The first type of strategies, “strategies for comprehension,” is used to comprehend reading and listening materials. Table 5-9 shows that these strategies were identified both inside and outside the classroom settings (Factors I-3 and O-3) and that the learners utilized these strategies most frequently in both settings (inside the classroom:  $M = 3.55$ ,  $SD = 0.85$ ; outside the classroom:  $M = 3.66$ ,  $SD = 0.84$ ). Based on these results, the author assumes that input-oriented activities such as reading and listening comprehension may be valued in the Japanese EFL context where the availability of naturalistic TL input is extremely limited and Japanese EFL learners should thus strive to get TL input inside and outside the classroom. A strong emphasis on input-oriented activities may have facilitated the frequent use of “strategies for comprehension” by the learners.

Table 5-9. Frequency of the Use of Strategies Inside and Outside the Classroom

Inside the classroom			Outside the classroom		
	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>
<b>A) Strategies for comprehension</b> (Factor I-3)	<b>3.55</b>	<b>0.85</b>	<b>A) Strategies for comprehension</b> (Factor O-3)	<b>3.69</b>	<b>0.84</b>
I-40 Guessing while reading English texts	3.62	1.16	O-47 Guessing while listening to English	3.79	1.11
I-46 Concentrating on listening to English	3.59	1.15	O-43 Guessing while reading English texts	3.76	1.07
I-37 Skimming a text while reading English	3.57	1.09	O-40 Skimming a text while reading English	3.66	1.06
I-44 Guessing while listening to English	3.55	1.22	O-51 Trying to get main ideas while listening to English	3.57	1.14
I-48 Trying to get main ideas while listening to English	3.48	1.10			
<b>B) Translation &amp; simplification strategies</b> (Factor I-5)	<b>2.99</b>	<b>0.83</b>	<b>C) Vocabulary &amp; sentence memorization</b> (Factor O-4)	<b>3.30</b>	<b>1.12</b>
I-31 Writing simple sentences	3.40	1.05	O-4 Reading aloud a new word while writing it	3.39	1.38
I-36 Translating English into Japanese literally when reading English texts	3.08	1.19	O-41 Reading aloud sentences	3.26	1.28
I-34 Translating Japanese into English literally when writing English sentences	2.80	1.14	O-6 Reading aloud a new word many times	3.24	1.31
I-27 Using Japanese while speaking English	2.71	1.19			
<b>E) Strategies for retention while reading aloud</b> (Factor I-4)	<b>2.97</b>	<b>0.99</b>	<b>B) Translation &amp; simplification strategies</b> (Factor O-5)	<b>3.20</b>	<b>0.89</b>
I-38 Reading aloud English sentences	3.21	1.28	O-9 Starting with easier words when memorizing new words	3.38	1.33
I-41 Memorizing English texts and reciting them	3.04	1.37	O-34 Writing simple sentences	3.35	1.16
I-39 Highlighting keywords while reading English texts	3.03	1.25	O-39 Translating English into Japanese when reading English texts	3.15	1.19
I-50 Dictating English	2.85	1.23	O-37 Translating Japanese into English literally when writing English sentences	2.95	1.18
I-43 Reading aloud English texts in a various way	2.71	1.26			
<b>D) Strategies for speaking practice</b> (Factor I-1)	<b>2.81</b>	<b>0.71</b>	<b>F) Follow-up learning &amp; metacognitive</b> (Factor O-1)	<b>2.96</b>	<b>0.76</b>
I-22 Attending to grammar while speaking English	3.19	1.16	O-35 Practicing to translate Japanese into English	3.61	1.18
I-21 Attending to pronunciation and intonation while speaking English	3.17	1.22	O-65 Asking questions of my family or friends	3.36	1.28
I-19 Imitating a native English teachers	3.03	1.34	O-59 Reviewing the words and/or sentences	3.19	1.22
I-7 Using new words while speaking and/or writing English	2.85	1.17	O-33 Doing pattern practices	3.16	1.30
I-24 Speaking English with a native English teacher	2.80	1.14	O-58 Reviewing English lessons	3.09	1.27
I-28 Speaking English with a loud voice	2.70	1.04	O-57 Previewing English lessons	3.09	1.36
I-26 Using gestures while speaking English	2.56	1.20	O-44 Memorizing English texts and reciting them	2.99	1.32
I-12 Making sentences by using new grammar	2.56	1.20	O-13 Writing a new word many times	2.98	1.36
I-25 Practicing English with friends	2.17	1.10	O-63 Having some specific goals	2.97	1.40
			O-7 Using new words while speaking and writing English	2.92	1.13
			O-14 Making sentences by using new grammar	2.92	1.20
			O-33 Writing English sentences by applying example sentences	2.90	1.18
			O-53 Dictating English	2.86	1.21
			O-46 Reading aloud English texts in a various way	2.65	1.20
			O-64 Thinking over my approach to English language learning	2.50	1.21
			O-62 Planning how to learn English	2.42	1.21

(Table continued on next page)

Table 5-9. (Continued)

C) Vocabulary & sentence memorization (Factor I-2)	2.79	0.99	D) Strategies for speaking practice (Factor O-2)	2.56	0.93
I-15 Doing grammar exercises	3.26	1.35	O-31 Speaking English with a loud voice	2.79	1.18
I-4 Reading aloud a new word while writing it	2.80	1.40	O-27 Speaking English with a native English speaker	2.76	1.19
I-1 Writing a new word many times	2.72	1.31	O-29 Using gestures while speaking English	2.58	1.25
I-11 Writing a new sentence many times	2.62	1.31	O-28 Practicing English with friends	2.24	1.12
I-10 Reviewing new words by looking at vocabulary lists	2.49	1.47			

The second type of strategies, “*translation and simplification strategies*,” was also identified in both learning settings (Factors I-5 and O-5). These strategies involve using L1 and simplifying L2 to process input and produce output of the TL. Most of the items included in this type relate to strategies used for avoiding communication breakdowns in speaking and writing. According to Table 5-9, the use of these strategies was relatively frequent in both settings. For instance, the frequency data showed that the use of these strategies was the second highest inside the classroom ( $M = 2.99$ ,  $SD = 0.83$ ) and the third highest outside the classroom ( $M = 3.20$ ,  $SD = 0.89$ ). This may be because the participants of the present study were lower secondary school students, who are at the beginning stage of EFL learning and have not yet developed sufficient ability to process L2 input and to produce output smoothly. They, therefore, tend to rely on their L1 (i.e., Japanese) and/or to simplify L2 when they engage in EFL learning.

The third type of strategies, “*strategies for vocabulary and sentence memorization*,” was also identified both inside and outside the classroom settings (Factors I-2 and O-4). The use of these memorization strategies seems to be especially favored by Asian EFL learners and to be important for them to acquire a certain amount of vocabulary in the beginning of their English language learning (Gan, 2004).

Unlike the two types of strategies mentioned above, however, the patterns of using this type of strategies were different in the two learning settings. Although the use of these strategies was least frequent inside the classroom ( $M = 2.79$ ,  $SD = 0.99$ ), it was the second highest outside the classroom ( $M = 3.30$ ,  $SD = 0.89$ ), as shown in Table 5-9. This may be because the time spent memorizing new words and sentences may be limited during English classes, as these classes only meet for 50 minutes three times a week at the lower secondary school. The learners, therefore, may be encouraged by their teachers to memorize words and sentences outside the classroom. As Takeuchi (2005) suggest, out-of-classroom learning seems to be a key for building vocabulary and learning new sentences in the Japanese EFL context.

Additionally, the fourth type of strategies, “*strategies for speaking practice*,” was extracted in both learning settings (Factors I-1 and O-2), and the patterns of using these strategies were somewhat different according to the two learning settings. As shown in Table 5-9, although these strategies were moderately utilized inside the classroom ( $M = 2.81$ ,  $SD = 0.71$ ), they were least frequently employed outside the classroom ( $M = 2.56$ ,  $SD = 0.93$ ). This may reflect the fact that the English education curriculum for Japanese lower secondary school students has begun to emphasize developing the students’ practical communication abilities (Japanese Ministry of Education, Culture, Sports, Science, and Technology, 1998, 2003, 2006), and speaking activities have been incorporated in the EFL classroom since then. Consequently, students have chances to use this type of strategies during English classes. Outside the classroom, on the other hand, there are few occasions to use English as a means of oral communication in the Japanese EFL context, and the EFL learners may not feel an urgent need to speak English. Such environmental factors may lead them to use these strategies infrequently in out-of-class setting.

Unlike the four types of strategies described above, the fifth type of strategies, “*strategies for retention while reading aloud*,” was extracted only for strategy use inside the classroom setting (Factor I-4). This implies that the learners are apt to employ these strategies inside the classroom rather than outside it. This tendency may be linked to the fact that reading-aloud activities have been popular in the Japanese EFL classrooms and English teachers may have introduced these activities during English classes. The frequency data shows that the use of these strategies was moderate ( $M = 2.97, SD = 0.99$ ), which implies that reading-aloud activities are usually conducted in the EFL classes.

In contrast, the final type of strategies, “*follow-up learning and metacognitive strategies*,” was identified only outside the classroom setting (Factor O-1). The use of follow-up learning strategies seems essential for learners at the lower secondary school level to better understand what they learned in English classes and to facilitate their learning. It is also important for them to use metacognitive strategies outside the classroom since the absence of a teacher prompts them to self-direct language learning and they have more opportunities to plan and reflect on how to learn English in non-classroom setting than they do in classroom setting. As shown in Table 5-9, the frequency of using these strategies was the third highest outside the classroom ( $M = 2.96, SD = 0.76$ ), and the students seemed to utilize these strategies moderately.

### 5.3 Summary

In this chapter, a questionnaire was constructed for the Japanese lower secondary school students of EFL to measure their strategy use inside and outside the classroom. The resulting questionnaire consisted of five factors (i.e., strategy types) for strategy use inside the classroom and five for outside the classroom, including 28 items

and 31 items, respectively. The reliability for each sub-scale was satisfactorily high, and the five-factor structures were validated by confirmatory factor analysis (see Appendix E for the questionnaire [Ver. 2.0]). The type and the frequency of strategy use by the Japanese lower secondary school students were then examined by using the questionnaire developed, and the following six types of strategies were identified: A) “*strategies for comprehension*” (Factors I-3 and O-3); B) “*translation and simplification strategies*” (Factors I-5 and O-5); C) “*strategies for vocabulary and sentence memorization*” (Factors I-2 and C-4); D) “*strategies for speaking practice*” (Factors I-1 and O-2); E) “*strategies for retention while reading aloud*” (Factor I-4); and F) “*follow-up learning and metacognitive strategies*” (Factor O-1). Although the former four types of strategies were identified both inside and outside the classroom settings, the latter two types were identified only in one of the learning settings. Additionally, the frequency data revealed that: 1) the students utilize “*strategies for comprehension*” the most frequently both inside and outside the classroom; 2) they employ “*translation and simplification strategies*” with relatively high frequency; and 3) they used some types of strategies (i.e., “*strategies for vocabulary and sentence memorization*” and “*strategies for speaking practice*”) differently in relation to the learning settings (i.e., in-class and out-of-class settings). These results seem to be influenced by several variables such as the Japanese EFL context, the teaching methods employed by teachers, and the stage of the learners’ EFL learning (i.e., in this case of beginning level of EFL learning).

### Notes

1. According to Russo (2003), a ceiling effect refers to the effect which occurs “when subjects perform at the top of the possible range of the scores used to

measure their performance, while a floor effect occurs when subjects perform at the bottom of this possible range of scores” (pp. 162-3). The presence of the ceiling effect and the floor effect can be calculated by, respectively, adding the value of standard deviation to the mean score and subtracting the value of standard deviation from the mean score (Oshio, 2004). In the case of a five-point Likert scale, if the estimated value exceeds five, it means there is a ceiling effect, and if the value is less than one, it indicates the presence of a floor effect.

2. According to Oshio (2004), correlation coefficients ranging from .40 to .70 are considered to be relatively high correlation in general.
3. Although items showing these effects were not deleted from the questionnaire in the pilot study (5.1.2), these items were excluded in the main study to properly conduct a factor analysis.
4. Dörnyei (2005) appears to be skeptical about computing the Cronbach’s alpha of each subscale of the strategy instrument (i.e., the *SILL*). However, each item included in the subscale is meant to measure a homogeneous construct, and it is commonly used to compute Cronbach’s alpha and indicate the internal consistency reliability of the strategy instrument. See White, Schramm, and Chamot (2007) for examples of major strategy instruments (i.e., the *SILL*, the *Language Strategy Survey*, the *Metacognitive Awareness of Reading Strategies Inventory*, the *Metacognitive Awareness Listening Questionnaire*) which have had their internal consistency reliability determined using Cronbach’s alpha.
5. Ikeda (2007) also paid attention to items showing ceiling and floor effects. In her study, she deleted items with ceiling and floor effects from the Reading Strategy Questionnaire (RSQ) prior to conducting an exploratory factor analysis, but she then added these items to the revised version of the RSQ to improve the content

validity of the RSQ.

6. Item I-53 (“*using PC software and/or the Internet*”) was included in the questionnaire based on the open-ended data obtained in Study 1, which suggested that some students described this strategy use outside the classroom. According to the out-of-class strategy use, the author thought that the English teachers at the school might, by any chance, have utilized computers and the Internet inside the classroom, and that the students might have had the chances to use this strategy in class.
7. As was mentioned in Note 2 of Chapter 3, data obtained from students who had stayed abroad for greater than one year or who are using English at home were not excluded from the analysis in the pilot survey (Study 1). This was because the survey was exploratory in nature and was preliminarily conducted in an attempt to elicit a variety of LLSs used by the lower secondary school students of EFL.

## 6. Study 3

In the previous chapter, a strategy questionnaire (Ver. 2.0) was systematically constructed, and the strategy use by the lower secondary school learners was profiled in terms of the type and the frequency of strategies utilized by the learners. The next research agenda that should be taken up here is to examine the link between strategy use and learning outcomes, since such a link has yet to be ascertained as was explained in the literature review (2.3.1 and 2.4). The purpose of the present study therefore is to examine the relationship between strategy use and learning outcomes among the Japanese lower secondary school students of EFL. More specifically, employing the questionnaire developed in Study 2, the present study aims to explore whether there is a positive relationship between the frequency of strategy use and English proficiency.

### 6.1 Method

#### 6.1.1 Participants and Data Collection

Among the 315 participants in Study 2, a total of 174 students who had taken *GTEC for STUDENTS*, an English proficiency test, were selected as participants for the present study. *GTEC (Global Test of English Communication) for STUDENTS*<sup>1</sup> is a standardized test often employed to measure learners' English proficiency levels in Japan. Criterion-related validity of the test was shown by the high correlations with other English proficiency tests (i.e., *TOEIC*, *TOEFL*, *STEP*). The internal consistency reliabilities of the test were .76 for the listening section and .83 for the reading section, as reported by the test developer. The sample of the present study, consisting of 98 eighth graders and 76 ninth graders, was balanced across males ( $n = 87$ ) and females ( $n = 87$ ), and the result of the  $t$ -test indicates that the males and the females were

homogeneous in terms of their English proficiency ( $t(172) = .40$ ,  $ns$ ,  $r = .03$ ). The participants were divided into three groups (high, medium, and low proficiency groups) according to the *GTEC* scores (Table 6-1). Their proficiency levels were confirmed to be significantly different ( $F(2, 171) = 532.21$ ,  $p < .001$ ,  $\eta^2 = .75$ ) by the ANOVA, along with a *post-hoc* test (Tukey's HSD). As for strategy use, the data were collected by employing the questionnaire developed in Study 2.

Table 6-1. The Number of the Participants and Their Test Scores According to Gender and Proficiency Levels

Proficiency level	Male	Female	Total	$M(SD)$
High	27	30	57	372.86 (29.11)
Medium	26	27	53	298.11 (15.99)
Low	34	30	64	240.69 (19.52)
Total	87	87	174	301.48 (59.49)

( $F(2, 171) = 532.21$ ,  $p < .001$ ,  $\eta^2 = .75$ )

(Max. 440)

#### 6.1.2 Data Analysis

Correlation analyses determined by the Pearson product-moment correlation were conducted to examine whether there are positive relationships between English proficiency and the use of strategy factors, which were extracted in Study 2. In addition, multivariate analysis of variance (MANOVA) was conducted to examine if there were significant differences in the use of strategy factors among the three different English proficiency groups. The MANOVA was carried out using the three proficiency levels as independent variables and the strategy factors as dependent

variables. When a significant value in the MANOVA was obtained, cross-comparisons were conducted by using Tukey's HSD procedure to identify where the differences were and to gain insights into the results obtained from the correlation analyses based on the suggestion made by Bruen (2001).<sup>2</sup>

## 6.2 Results

### 6.2.1 Strategy Use Inside the Classroom

Table 6-2 shows the correlations between English proficiency and strategy use inside the classroom. According to the results, no positive correlations were found between proficiency and strategy use. On the other hand, as shown in the table, negative correlations were found between proficiency and the use of Factor I-2 (*"strategies for vocabulary and sentence memorization"*) ( $r = -.22, p < .01$ ), Factor I-4 (*"strategies for retention while reading aloud"*) ( $r = -.26, p < .01$ ), and Factor I-5 (*"translation and simplification strategies"*) ( $r = -.26, p < .01$ ).

Moreover, as was recommended by Shizuka, Takeuchi, and Yoshizawa (2002), the author referred to the scattergrams for the correlations since the results of correlation analyses tend to be significant with a large sample size. Based on the scattergrams shown in Figures 6-1 to 6-3, it seemed that linearity was not confirmed between proficiency and the use of Factors I-2 and I-4, and that linearity was found only between proficiency and the use of Factor I-5. According to these findings, the author assumes that there seems to be a negative relationship only between proficiency and the use of Factor I-5 (*"translation and simplification strategies"*).

Table 6-2. Correlations Between English Proficiency and Strategy Use Inside the Classroom

	Proficiency	Factor I-1	Factor I-2	Factor I-3	Factor I-4	Factor I-5
Proficiency	1.00					
Factor I-1	-.11	1.00				
Factor I-2	-.22**	.42**	1.00			
Factor I-3	-.09	.58**	.36**	1.00		
Factor I-4	-.26**	.66**	.44**	.57**	1.00	
Factor I-5	-.26**	.36**	.30**	.47**	.46**	1.00

\*\* $p < .01$

Notes. Factor I-1 = strategies for speaking practice; Factor I-2 = strategies for vocabulary and sentence memorization; Factor I-3 = strategies for comprehension; Factor I-4 = strategies for retention while reading aloud; and Factor I-5 = translation and simplification strategies.

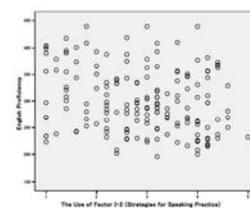


Figure 6-1. Correlation between English proficiency and the use of Factor I-2 (*strategies for vocabulary and sentence memorization*).

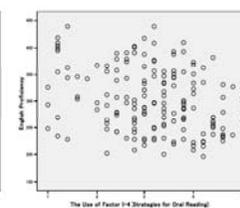


Figure 6-2. Correlation between English proficiency and the Use of Factor I-4 (*strategies for retention while reading aloud*).

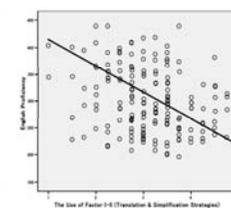


Figure 6-3. Correlation between English proficiency and the use of Factor I-5 (*translation and simplification strategies*).

The relationships between English proficiency and strategy use were further investigated by the MANOVA to confirm the results yielded by the correlation analyses. The results of the descriptive statistics and those of the MANOVA are shown in Tables 6-3 and 6-4, respectively. The analysis showed the main effect of proficiency levels on strategy use inside the classroom (Wilk's  $\lambda = .85$ ,  $F(2, 153) = 2.57$ ,  $p < .05$ , multivariate  $\eta^2 = .15$ ). As shown in Table 6-4, there were significant differences among the three different proficiency groups in the use of Factor I-2 ("*strategies for vocabulary and sentence memorization*"), Factor I-4 ("*strategies for retention while reading aloud*"), and Factor I-5 ("*translation and simplification strategies*"). According to the *post-hoc* tests, the high proficiency group reported significantly less frequent use of: a) Factors I-2 and I-4 than did the low proficiency group; and b) Factor I-5 than did the medium and the low proficiency groups.

Table 6-3. Mean and Standard Deviation of Each Factor Inside the Classroom

Factor	High		Medium		Low	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Factor I-1	2.70	.88	2.89	.66	2.90	.69
Factor I-2	2.61	1.10	2.90	.88	3.12	1.07
Factor I-3	3.49	.84	3.62	.74	3.75	.69
Factor I-4	2.83	.94	3.20	.97	3.40	.98
Factor I-5	2.74	.70	3.31	.76	3.25	.72

Notes. Factor I-1 = strategies for speaking practice; Factor I-2 = strategies for vocabulary and sentence memorization; Factor I-3 = strategies for comprehension; Factor I-4 = strategies for retention while reading aloud; and Factor I-5 = translation and simplification strategies.

Table 6-4. Results of MANOVA of Each Factor Inside the Classroom

Factor	Proficiency			Difference Detected
	<i>df</i>	<i>F</i>	$\eta^{2a}$	
Factor I-1	2	1.15	.02	
Factor I-2	2	3.36*	.04	High < Low
Factor I-3	2	1.53	.02	
Factor I-4	2	4.54*	.06	High < Low
Factor I-5	2	9.85***	.12	High < Medium, Low

\* $p < .05$ , \*\*\*  $p < .001$

Notes. Factor I-1 = strategies for speaking practice; Factor I-2 = strategies for vocabulary and sentence memorization; Factor I-3 = strategies for comprehension; Factor I-4 = strategies for retention while reading aloud; and Factor I-5 = translation and simplification strategies.

<sup>a</sup> The effect sizes (eta squared) were estimated. A value of .14 or greater indicates a large effect (Mizumoto & Takeuchi, 2008).

However, statistical significance is sensitive to sample size and tends to be found with a large sample size. Therefore, it is recommended to report on effect sizes, which show the strength of association between the main effect and the dependent variable (Hatch & Lazaraton, 1990; Mizumoto & Takeuchi, 2008). According to Mizumoto and Takeuchi, a value of .14 or greater indicates a large effect. Table 6-4 shows that the effect sizes (i.e., eta squared:  $\eta^2$ ) estimated for the significant differences among the three groups in the use of Factors I-2 and I-4 were .04 and .06, respectively. Strong relationships thus were not confirmed between proficiency and the use of Factors I-2 and I-4. On the other hand, the effect size estimated for the significant differences among the three groups in the use of Factor I-5 was .12, which suggests a relatively strong relationship between proficiency and the use of the strategy

factor. Based on the findings, it is assumed that there is a significant difference only in the use of Factor I-5 among the three groups, and the high proficiency group utilizes “translation and simplification strategies” (Factor I-5) less frequently than do the other two groups. According to the results obtained from the MANOVA as well as the correlation analyses presented above, it can be claimed that there is a negative relation only between proficiency and the use of Factor I-5 (“translation and simplification strategies”).

### 6.2.2 Strategy Use Outside the Classroom

According to the correlation matrix (Table 6-5), no positive correlations were found between proficiency and strategy use outside the classroom. On the other hand, negative correlations were found to be significant between proficiency and the use of Factor O-1 (“follow-up learning and metacognitive strategies”) ( $r = -.23, p < .01$ ), Factor O-2 (“strategies for speaking practice”) ( $r = -.24, p < .01$ ), Factor O-4 (“strategies for vocabulary and sentence memorization”) ( $r = -.25, p < .01$ ), and Factor O-5 (“translation and simplification strategies”) ( $r = -.41, p < .01$ ). However, the coefficients of correlation for the first three factors (Factors O-1, O-2 and O-4) were rather low, and no linearity was confirmed between English proficiency and the use of these factors based on each scattergram (Figures 6-4 to 6-6). Linearity was found only between proficiency and the use of Factor O-5 (Figure 6-7). It thus seems that there is a negative relationship only between proficiency and the use of Factor O-5 (“translation and simplification strategies”).

Table 6-5. Correlations Between English Proficiency and Strategy Use Outside the Classroom

	Proficiency	FactorO-1	FactorO-2	FactorO-3	FactorO-4	FactorO-5
Proficiency	1.00					
Factor O-1	-.23**	1.00				
Factor O-2	-.24**	.54**	1.00			
Factor O-3	-.12	.41**	.29**	1.00		
Factor O-4	-.25**	.50**	.49**	.21**	1.00	
Factor O-5	-.41**	.40**	.30**	.39**	.33**	1.00

\*\* $p < .01$

Notes. Factor O-1 = follow-up learning and metacognitive strategies; Factor O-2 = strategies for speaking practice; Factor O-3 = strategies for comprehension; Factor O-4 = strategies for vocabulary and sentence memorization; and Factor O-5 = translation and simplification strategies.

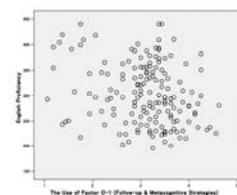


Figure 6-4. Correlation between English proficiency and the use of Factor O-1 (“follow-up learning and metacognitive strategies”).

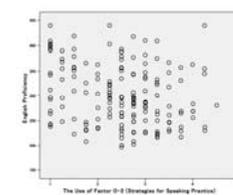


Figure 6-5. Correlation between English proficiency and the use of Factor O-2 (“strategies for speaking practice”).

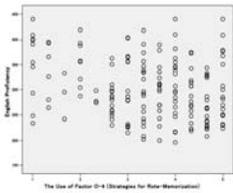


Figure 6-6. Correlation between English proficiency and the use of Factor O-4 (“strategies for vocabulary and sentence memorization”).

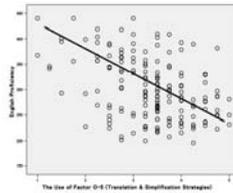


Figure 6-7. Correlation between English proficiency and the use of Factor O-5 (“translation and simplification strategies”).

The results obtained by the correlation analyses were further examined by the MANOVA. The results of the descriptive statistics are shown in Table 6-6 and those of the MANOVA in Table 6-7. The analysis indicated the main effect of proficiency levels on strategy use outside the classroom (Wilk’s  $\lambda = .76$ ,  $F(2,155) = 4.43$ ,  $p < .001$ , multivariate  $\eta^2 = .24$ ). As shown in Table 6-7, significant differences were found among the three different proficiency groups in their use of Factor O-1 (“*follow-up learning and metacognitive strategies*”), Factor O-2 (“*strategies for speaking practice*”), Factor O-4 (“*strategies for vocabulary and sentence memorization*”), and Factor O-5 (“*translation and simplification strategies*”). The *post-hoc* tests indicate that the high proficiency group reported significantly less frequent use of: a) Factors O-1, O-2, and O-4 than did the low proficiency group; and b) Factor O-5 than did the medium and the low proficiency groups.

Table 6-6. Mean and Standard Deviation of Each Factor Outside the Classroom

Factor	High		Medium		Low	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Factor O-1	2.89	.75	3.20	.67	3.22	.73
Factor O-2	2.26	.99	2.57	.73	2.68	.85
Factor O-3	3.62	.81	3.81	.73	3.80	.62
Factor O-4	3.12	1.29	3.48	1.03	3.88	.96
Factor O-5	2.82	.80	3.63	.71	3.60	.73

Notes. Factor O-1 = follow-up learning and metacognitive strategies; Factor O-2 = strategies for speaking practice; Factor O-3 = strategies for comprehension; Factor O-4 = strategies for vocabulary and sentence memorization; and Factor O-5 = translation and simplification strategies.

Table 6-7. Results of MANOVA of Each Factor Outside the Classroom

Factor	Proficiency			Difference Detected
	<i>df</i>	<i>F</i>	$\eta^{2a}$	
Factor O-1	2	3.49*	.04	High < Low
Factor O-2	2	3.52*	.04	High < Low
Factor O-3	2	1.23	.02	
Factor O-4	2	6.50**	.09	High < Low
Factor O-5	2	19.90***	.21	High < Medium, Low

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Notes. Factor O-1 = follow-up learning and metacognitive strategies; Factor O-2 = strategies for speaking practice; Factor O-3 = strategies for comprehension; Factor O-4 = strategies for vocabulary and sentence memorization; and Factor O-5 = translation and simplification strategies.

<sup>a</sup> The effect sizes (eta squared) were estimated. A value of .14 or greater indicates a large effect (Mizumoto & Takeuchi, 2008).

Although significant differences were detected in the use of Factors O-1, O-2, and O-4, the effect sizes for such significant differences indicate that there are weak associations between English proficiency and the use of these factors (Table 6-7). A strong association was found only between English proficiency and the use of Factor O-5. It thus appears that there is a significant difference only in the use of Factor O-5 among the three groups, and the high proficiency group utilizes “*translation and simplification strategies*” (Factor O-5) less frequently than do the other two groups. Considering the results of the MANOVA as well as the correlation analyses described above, the author claims that there is a negative relationship only between English proficiency and the use of Factor O-5 (“*translation and simplification strategies*”).

### 6.3 Discussion and Summary

The primary objective of the present study was to investigate whether there would be a positive relationship between English proficiency and the frequency of strategy use among the lower secondary school students. The study found that their strategy use was not positively related to their English proficiency. This result can be interpreted in terms of: 1) the flexibility of strategy use; 2) the strategies identified; and 3) the measure of proficiency.

Firstly, there might have been potential differences in strategy use between higher and lower proficiency learners other than the frequency of strategy use. Based on the new insights obtained from some qualitative studies (e.g., Gan et al., 2004; Vandergrift, 2003; Vann & Abraham, 1990), many LLS researchers suggest that the flexibility of strategy use may be associated with learning outcomes (e.g., Anderson, 2005, 2008; Cohen, 1998; Grenfell & Macaro, 2007; Gu, 2005). For example, in analyzing the learners’ protocol data, Vandergrift (2003) revealed that more skilled

listeners utilized metacognitive and cognitive strategies in an orchestrated way and interacted with the listening materials more deeply compared with less skilled ones. Another example is found with a qualitative study by Gan et al. (2004). They suggested that, although both the successful and the unsuccessful learners reported frequent use of some similar cognitive strategies (i.e., rote-memorization, lesson previewing), the successful learners exhibited a specific sequence of steps in using these cognitive strategies to learn new vocabulary and lesson materials effectively. Vann and Abraham (1990), focusing on unsuccessful learners’ strategy use and analyzing the learners’ think-aloud protocols, found that, although they were not inactive in strategy use and utilized strategies frequently, they lacked a systematic approach to the use of metacognitive strategies and thus failed to complete language tasks. In addition to the flexibility of strategy use, a portfolio study of Ikeda and Takeuchi (2006) demonstrated that higher proficiency readers understood the efficacy of each strategy use and thus employed strategies more effectively to read English passages compared with their lower proficiency counterparts. Based on the insights obtained from these qualitative studies, it thus might be necessary to closely examine how the lower secondary school students utilize LLSs in order to clarify the relationship between their strategy use and English proficiency.

Secondly, even though the strategy questionnaire employed in the present study has been constructed to include common strategies utilized by Japanese lower secondary school students, higher proficiency learners might have used some unique strategies that were not listed in the questionnaire. Further investigation is thus needed to explore strategies employed especially by learners with high proficiency in order to gain insight into their strategy use. The results would also be useful in revising the questionnaire and improving its content validity.

Thirdly, although this study employed a standardized test to measure the learners' English proficiency, their strategy use might have been associated with achievement rather than proficiency. This assumption comes from a claim that strategy use is influenced by the goals of language learning (Macaro, 2006). According to the English teachers at the lower secondary school, the participants' purpose of English learning tends to be linked with gaining high marks (i.e., "A") in the English class. Their course grade is evaluated by their English teachers based on classroom activities and on the results of speaking tests as well as on term examinations. Given that gaining high scores on these achievement tests is the main purpose of their English language learning, it can be argued that their strategy use might have been closely connected with achievement, rather than English proficiency measured by the test used in this study. On the other hand, it can also be assumed that their strategy use might not have been associated with achievement, either, since the participants of the present study were beginning learners of EFL, and their achievement and proficiency might not have been separated clearly.<sup>3</sup>

The present study also revealed that there were negative relationships between English proficiency and the use of Factors I-5 and O-5 ("*translation and simplification strategies*") among the lower secondary school learners. This may be because less proficient learners tend to rely on L1 and simplify L2 structure when they process L2 input and/or produce L2 output due to their insufficient ability in L2. This tendency was also found by Nakatani (2006), who examined the relationship between oral communication strategy use and oral performance among Japanese EFL university students.

Another possible explanation for the negative relationships is concerned with the distinction between *language learning strategies* and *communication strategies*. As

was proposed in 3.4, the present research incorporates *communication strategies* in the operational definition of LLSs (i.e., *language learner strategies*). Most of the items included in Factors I-5 and O-5 (i.e., Items I-27, I-31, I-34, O-34, and O-37)<sup>4</sup> are regarded as *communication strategies*, which are used for avoiding communication breakdowns in speaking and writing tasks. However, it is sometimes said that *communication strategies* should be distinguished from *language learning strategies*, since the processes involved in language use and those involved in language learning are different from each other (Dörnyei, 2005). Although the present study found negative relationships between English proficiency and the use of Factors I-5 and O-5, both of which are similar to *communication strategies*, we can say that it was not *language learning strategies* but *communication strategies* that showed negative relations with English proficiency. The result therefore does not necessarily mean that there were negative relationships between the use of *language learning strategies* and English proficiency.

## Notes

1. The test was developed by Benesse Corporation (<http://www.benesse.co.jp>). It was designed to assess both learners' communicative skills and grammatical competence in EFL. There are three types (i.e., *Core*, *Basic*, and *Advance*) in *GTEC*. In this study, *Core* type, designed for lower secondary school students, was administered to the participants. The total score of the test (*Core* type) is 440 (170 reading, 170 listening, and 100 composition scores).
2. Bruen (2001) recommended using two procedures (e.g., correlation analyses and the ANOVA) to verify the relationship between strategy use and L2 proficiency.

3. The relationship between the students' strategy use and their achievement was not investigated in the present study. This is because the data pertaining to the students' achievement (i.e., the scores of term examinations) were treated as confidential information at the lower secondary school, and thus not available for the data analysis.
4. These items are as follows: *"using Japanese to substitute for unknown English expressions while speaking English"* (Item I-27), *"writing simple sentences without using difficult words and sentence structures"* (Items I-31 and O-34), and *"translating Japanese into English literally when writing English sentences"* (Items I-34 and O-37).

## 7. Study 4

In the previous chapter, a quantitative study was conducted by using the questionnaire developed in Study 2 (Chapter 5) and found no positive relations between English proficiency and the frequency of strategy use by the Japanese lower secondary school students of EFL. The possible reasons why such a positive relation was not ascertained are: 1) there might have been potential differences in strategy use between higher and lower proficiency learners other than the frequency of strategy use; 2) the higher proficiency learners might have utilized some unique strategies in addition to the strategies listed in the questionnaire, which was constructed to include the common strategies used by the lower secondary school students; and 3) the frequency of strategy use might have been more closely linked to English achievement rather than to English proficiency, as was discussed in 6.3. Although the third assumption cannot be further investigated since the learners' achievement data are unavailable for data analysis (see Note 3 in Chapter 6), the first and second assumptions should be explored to provide a better understanding of how their strategy use relates to their English proficiency. By collecting and analyzing qualitative data obtained from diaries and interviews, the present study thus aims to: 1) reveal the details of the lower secondary school students' strategy use that were unobtainable by the questionnaire survey; and 2) scrutinize the relationship between their strategy use and English proficiency.

### 7.1 Data Collection and Analysis

To examine the details of the strategy use by the lower secondary school learners, two sets of qualitative data were gathered: 1) English language learning diaries as primary data; and 2) follow-up interviews as supplemental data.

### 7.1.1 Diaries

The diary method was employed to investigate the learners' strategy use.<sup>1</sup> This method has been considered to be an introspective technique<sup>2</sup> and was used with the aim of exploring various aspects of individual language learning (e.g., Bailey, 1991; Huang, 2005; Matsumoto, 1987, 1994; Nunan, 1992). In diaries, a learner reports on "affective factors, language learning strategies, and his own perceptions—facets of the language learning experience which are normally hidden or largely inaccessible to an external observer" (Bailey & Ochsner, 1983, p. 189). In the field of LLS studies, researchers have begun to utilize this method to describe the details of learners' strategy use (e.g., Carson & Longhini, 2002; Halbach, 2000; Root, 1999).<sup>3</sup>

The participants of the present study were a total of 121 seventh graders learning English at the lower secondary school. The seventh graders were selected as participants since the author was in charge of their English classes at the time of data collection, and it was possible for her to collect diary data from her students for an extended period of time. Moreover, there was a good relationship built between the author and the participants so that they were expected to report on their strategy use to the author openly and honestly (Hall, 2008). The participants were asked to keep an English language learning diary at least three times a week *in in-class and out-of-class* settings for a period of five weeks during the second semester of 2006. In the journal,<sup>4</sup> they were requested to record retrospective accounts of how they had utilized strategies and what they had felt while utilizing them. They described their strategy use both inside and outside the classroom, pertaining to the following language skills: speaking, writing, reading, listening, grammar-learning, and vocabulary-learning. These skill-specific strategies were investigated since these skills were taught in the regular English classes and were associated with the strategy factors extracted in the previous

questionnaire study (Chapter 5). To examine the skill-specific strategy use in details, the author required the participants to focus only on one skill at a time and to report on the details of each skill-specific strategy use in one entry.

To gain informative descriptions, a format of the diary was provided. It was composed of two sections: 1) a closed-end format in which a list of strategies was presented and the learners were asked to indicate the ones they had employed inside and outside the classroom, respectively; and 2) an open-ended format in which they were requested to describe how they had employed not only the strategies chosen from the strategy list but also other strategies that were not included in the list, if any (see Appendix F for the sample of the diary format). Regarding the closed-end format, the strategy list was provided to help them become aware of their strategy use, since it seemed to be difficult especially for learners at the lower secondary school level to recognize their use of LLSs (Tsuda, 2004; Yukina, 2000) and thus to describe strategy use in the open-ended format only. The strategy list consisted of a closed set of cognitive strategies, which were selected from the previous questionnaire study (Chapter 5), and of metacognitive strategies suggested by major LLS research (i.e., O'Malley & Chamot, 1990; Oxford, 1990). Concerning the open-ended format, examples of descriptions were provided, so that they could have an idea of what they were expected to write in the journals.<sup>5</sup> To ensure detailed and comprehensive descriptions of their strategy use, the language in which these journals were completed was their L1 (i.e., Japanese). All the excerpts presented in this dissertation are therefore English translations by the author.

The diary-keeping was a part of the requirements of the course, so that all students were expected to record the diary. Prior to the diary sessions, it was explained to the students that: 1) there were neither right nor wrong descriptions; 2) the quality of

the descriptions would not affect their grades; and 3) the descriptions would be kept strictly confidential. They recorded their journal entries in two settings: a) inside the classroom; and b) outside the classroom. Concerning the in-class entries, the students were allotted five minutes at the end of each class to describe their strategy use inside the classroom. The author (i.e., their English teacher) then collected the in-class entries immediately after the students had finished writing the entries. Regarding the out-of-class entries, the students were required to record their strategy use outside the classroom and submit the entries in the beginning of the next class. Accordingly, the author had access to their journal entries and checked if everyone submitted his/her entry and fulfilled the requirements every session. Feedback on their journal entries was given once a week just to encourage their diary-keeping.<sup>6</sup>

For the analysis, data obtained from the following students were excluded from the data analysis: a) those who had spent more than one year abroad or who are using English in their daily life; and b) those who did not hand in their journal entries properly (i.e., the students who either had been absent from school during the five-week period or had not submitted all the entries). Accordingly, the number of the available data sets was reduced to 84.<sup>7</sup> Twenty diaries were then selected, ten of which were written by students in the higher proficiency group while the other ten were provided by students in the lower group, based on the results of the *GTEC for STUDENTS*, a standardized test, which was also employed in Study 3 (Chapter 6). To examine whether there is a significant difference in the mean scores between the higher and the lower proficiency groups, a non-parametric test (i.e., the Mann-Whitney *U* test) was run since normal distribution of the data was not assumed due to the small sample size and these two groups were independent (Siegel, 1956). As shown in Table 7-1, the two groups' proficiency levels were confirmed to be significantly different.

Table 7-1. The Number of the Students and Their Test Scores According to the Two Proficiency Groups

Group	<i>N</i>	<i>M</i> ( <i>SD</i> )	<i>U</i>	<i>r</i>	<i>p</i>
Higher	10	394.3 (27.7)	0	-.85	<i>p</i> < .001
Lower	10	185.8 (36.6)			

(Max. 440)

Thirty-five entries were gathered from each participant. In the journal entries, descriptions provided by the students in the open-ended format were mainly used for the data analysis, and the information obtained in the closed-end format was used for identifying the type of strategies described in the open-ended format. A grounded theory approach (Strauss & Corbin, 1998)<sup>8</sup> was employed to analyze the open-ended data and to identify the specific patterns of their strategy use, following the three steps: 1) open coding; 2) axial coding; and 3) selective coding. First, in the open coding, the author read through all the journal entries to identify the descriptions that contained LLs. Each description was labeled with the type of strategy use as well as the participant's identification code. Similar elements were then tentatively categorized together. Second, in the axial coding, the relationships among the emerging categories were examined, and the underlying concept of each category was named by the author. In the final step, the selective coding, a central category was developed by associating the categories established by the axial coding. This three-step procedure was repeated several times until "theoretical saturation" occurred. "Theoretical saturation" means that "no new properties and dimensions emerge from the data, and the analysis has accounted for much of the possible variability" (Strauss & Corbin, 1998, p. 158). As was recommended by Strauss and Corbin, the author reviewed the raw data several

times and checked if there were data that might have been overlooked. In addition, she selectively gathered additional data about poorly developed categories by means of the interview method (for the interview procedure, see 7.1.2 below).

At the end of the data analysis, ten percent of the samples were randomly selected from each category and checked by another researcher to minimize the effects of subjectivity in coding and categorizing.<sup>9</sup> The consensus on the analysis was approximately 90% between the researcher and the author.

In addition to the learners' diaries, a teaching diary kept by their English teacher after each class was collected as supplemental data to provide information about the classroom activities and to gain insights into the learners' strategy use in the classroom.

### 7.1.2 Follow-up Interviews

Follow-up interviews were conducted with eight out of the twenty students to supplement the categories unsatisfactorily developed from the diary data, that is, the categories that had contained a relatively small number of descriptions reported by the students in their journal entries. A total of four (two males and two females) were selected from the higher and the lower proficiency groups, respectively. The selection of the students was carried out on the basis of the descriptions written in their diaries. To be more precise, those who had commented little on the poorly developed categories or those who had made interesting comments on the categories in their journals were chosen as the interviewees. They were also in rapport with the interviewer (i.e., the author) so that they were expected to provide ample information on their strategy use. The interviews were conducted in their L1 (i.e., Japanese) to obtain accurate information on their strategy use. The interviews, lasting 10-20

minutes each, were audio recorded. Prior to the data collection sessions, the participants were assured that their data would be treated confidentially. They were also informed that there were no right or wrong answers to any questions and that their responses would not affect their grades. The resultant data was transcribed and analyzed with particular reference to the research questions that emerged from the analysis of the diaries.

## 7.2 Results and Discussion

In the following sections, the results of the data analyses are reported on in terms of: 1) the details of the strategy use by the Japanese lower secondary school learners; and 2) the differences in the strategy use between the higher and the lower proficiency groups.

### 7.2.1 Generated Categories: Details of Strategy Use

In the learners' diaries, a total of 1,873 comments were identified as pertaining to LLSs. As a result of the analysis, three major categories gradually emerged as the components that constitute the strategy use of the Japanese lower secondary school learners. These were: 1) types of strategies utilized; 2) manners of strategy deployment; and 3) awareness of strategy use. Figure 7-1 shows the details of each major component.

As the first component, the types of strategies utilized by the learners were identified. All strategies were first divided into skill-specific strategies (e.g., speaking, reading, vocabulary-learning, and so forth). These skill-specific strategies were then classified into three groups according to their functions: cognitive strategies; metacognitive strategies; and social, affective, and communication strategies. This

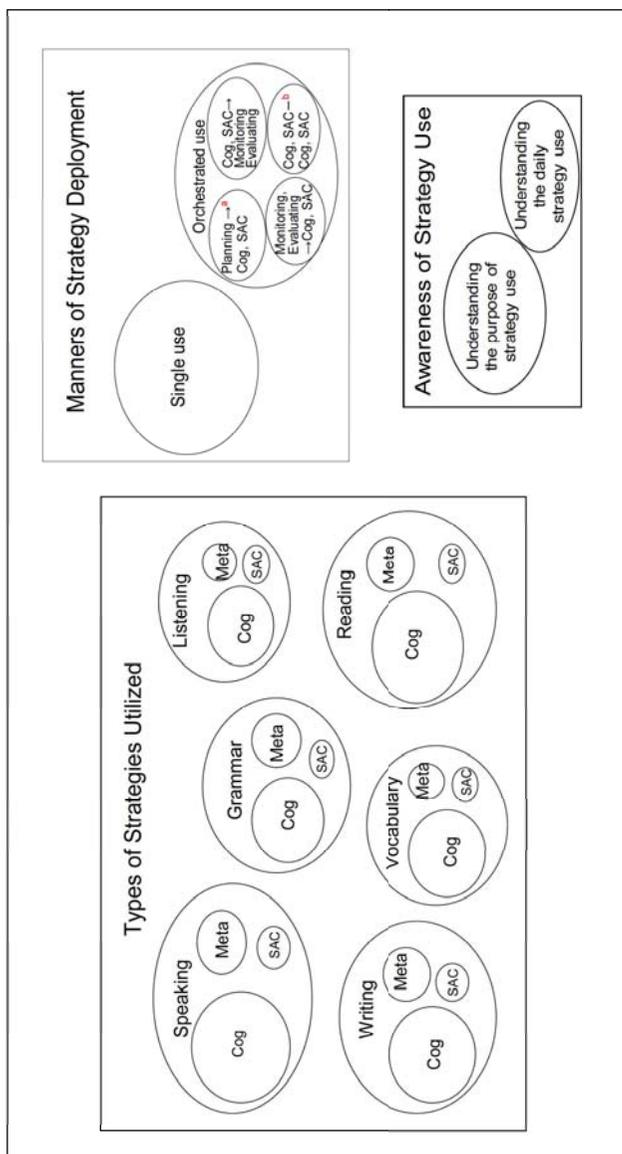


Figure 7-1. The details of the strategy use by the Japanese lower secondary school students of EFL.

Notes Cog = Cognitive strategies; Meta = Metacognitive strategies, SAC = Social, affective, and communication strategies.

<sup>a</sup> An arrowed line indicates a successive use of strategies.

<sup>b</sup> A horizontal line is used here since these strategies were employed not only successively but also simultaneously.

grouping is contingently similar to O'Malley and Chamot's (1990) classification systems (i.e., cognitive, metacognitive, social/affective strategies), and thus the present study adopted their names.

Secondly, in-depth analyses of the diaries illuminated the ways in which the learners had employed these strategies. Two manners of strategy deployment were identified: A) single use of a strategy; and B) orchestrated use of strategies. In the single use of a strategy, a learner deploys each strategy separately when engaging in a language task. In the orchestrated use of strategies, a learner deploys more than one strategy in a successive manner or at the same time while engaging in a language task. As shown in Figure 7-1, four patterns were identified within the orchestrated use of strategies. For instance, the learners described a successive use of: a) a metacognitive strategy such as "*planning*" and some cognitive, social, affective, or communication strategies; b) cognitive, social, affective, or communication strategies and a metacognitive strategy such as "*monitoring*" or "*evaluating*"; and c) a metacognitive strategy such as "*monitoring*" or "*evaluating*" and cognitive, social, affective, or communication strategies. They also reported on a successive or simultaneous use of: d) several cognitive, social, affective, and communication strategies.

Finally, further analyses revealed what the learners were aware of while deploying strategies in the single or the orchestrated manners. Two types of awareness were mainly mentioned in their journal entries: A) understanding the purpose of each strategy use; and B) understanding the daily strategy use. Regarding the first type, some learners were aware of the reason behind their strategy use, and they specifically mentioned the purpose of each strategy use in their diaries. For instance, some learners described that they had utilized strategies in order to accomplish language tasks efficiently. Other learners stated that they had employed strategies in order to improve

their English proficiency and/or some specific language skills. Concerning the second type of awareness, some learners realized that they had employed the same type of strategies repeatedly, and they explicitly commented on the fact that they had utilized such strategies on a daily basis in their journal entries.

## 7.2.2 Differences Between Higher and Lower Proficiency Groups

### 7.2.2.1 General Tendency

A comparison was then made to clarify the differences in strategy use in terms of proficiency level. Table 7-2 shows the general tendency of strategy use by each group in terms of the three major components identified. According to the table, the higher proficiency group was likely to: 1) have a wider range of strategies; 2) deploy strategies in an orchestrated way more frequently; and 3) be more aware of their strategy use than the lower proficiency group. These differences between the two groups were confirmed to be significant by means of chi-square tests, as shown in Table 7-2. The number of the descriptions concerning the third component, however, was considerably small compared with the first and the second components. This might suggest that the diary method has precluded an investigation of what the learners were aware of while utilizing strategies.<sup>10</sup> Follow-up interviews were thus conducted with eight learners to further investigate and validate the results concerning the awareness of strategy use obtained from the diary data. During the interviews, the participants were asked several questions such as “*Are you aware of using this strategy?*”, “*When did you start using this strategy?*”, and “*Why did you use this strategy?*” In the following sections, specific strategy use reported by the higher and the lower proficiency groups is presented and discussed by introducing several excerpts from the journal entries and the interviews, which were translated from the

original Japanese version into English by the author, to illuminate the differences in strategy use in terms of the proficiency level.

Table 7-2. The Number of the Descriptions Reported by the Higher (HP) and the Lower Proficiency (LP) Groups

	HP	LP	$\chi^2$	$r^a$
<b>Type of strategies utilized</b>				
The range of strategies utilized	179	144	3.79*	.10
<b>Manner of strategy deployment</b>				
Orchestrated use of strategies	493	340	28.10***	.19
a) Meta (“ <i>planning</i> ”)→ <sup>b</sup> Cog / SAC	44	18	10.90**	.40
b) Cog / SAC→Meta (“ <i>monitoring</i> ,” “ <i>evaluating</i> ”)	140	106	4.70*	.18
c) Meta (“ <i>monitoring</i> ,” “ <i>evaluating</i> ”)→Cog / SAC	153	104	9.34**	.12
d) Cog / SAC— <sup>c</sup> Cog / SAC (without Meta)	156	112	7.22**	.15
<b>Awareness of strategy use</b>				
Understanding the purpose of strategy use	41	14	13.25***	.47
Understanding the daily strategy use	11	3	4.57*	.66

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Notes. Meta = metacognitive strategies; Cog = cognitive strategies; SAC = social, affective, and communication strategies; HP = higher proficiency group; LP = lower proficiency group.

<sup>a</sup> The effect size, which shows the strength of association between two categorical variables, was estimated. A value of greater than .10, .30, and .50 indicates a small, medium, and large effect respectively (Mizumoto & Takeuchi, 2008).

<sup>b</sup> An arrowed line indicates a successive use of strategies.

<sup>c</sup> A horizontal line is used here since these strategies were employed not only successively but also simultaneously.

### 7.2.2.2 Specific Strategy Use

#### *Types of Strategies Utilized*

The number of the descriptions reported in the diaries indicated that the learners in the higher proficiency group seemed to have a wider range of strategies. This finding is in accord with previous LLS studies (e.g., Abraham & Vann, 1987; Green & Oxford, 1995; Wenden, 1985). The qualitative analysis of the diary data further identified three differences in the types of strategies employed by the two different proficiency groups. The first difference was observed in the use of strategies for speaking practice inside the classroom. While the participants in the both groups often utilized “*paying attention to pronunciation and/or intonation*” and “*imitating the teacher’s pronunciation*” to improve their speaking ability, the higher proficiency group additionally employed other strategies such as “*increasing the TL input*” and “*paying attention to language function*.” For example, Excerpts 1 and 2 show the use of “*increasing the TL input*” and “*paying attention to language function*,” respectively, by the students in the higher proficiency group.

Excerpt 1 (February 8, written by a female student “C” in HP<sup>11</sup>)

*(In class) I carefully listened to the conversations in English between “Y-sensei” (the Japanese teacher of English) and “P-sensei” (the native English teacher) and tried to understand them.*

Excerpt 2 (February 1, written by a male student “J” in HP)

*(In class) When I was making English sentences for the conversation,<sup>12</sup> I was thinking that when we ask permission, we use*

*“Can I” and that when we ask something, we use “Can you.”*

The diaries written by the lower proficiency group, in contrast, did not contain such descriptions. The learners in this group were inclined to use “*paying attention to pronunciation and/or intonation*” and “*imitating the teacher’s pronunciation*,” as shown in Excerpts 3 and 4.

Excerpt 3 (February 1, written by a male student “Q” in LP)

*(In class) I imitated “P” (the native English teacher) and repeated after him. I also paid attention to my English pronunciation and intonation.*

Excerpt 4 (February 1, written by a male student “K” in LP)

*(In class) I listened to “P” (the native English teacher) and tried to imitate his pronunciation as much as possible.*

The possible explanation for their use of these strategies is that their English teacher encouraged them to use these strategies during the class, as shown in Excerpt 5.

Excerpt 5 (February 1, written by the English teacher “Y”)

*Before reading aloud the model sentences in the textbook, I instructed my students to listen to “P” (the native English teacher)’s pronunciation and intonation very carefully and imitate his pronunciation and intonation as much as possible.*

A second difference was found in the use of strategies for grammar-learning and writing outside the classroom. As for the strategy use for grammar-learning, although both higher and lower proficiency learners often employed the strategy of “doing grammar exercises” to learn new grammatical forms, the higher proficiency learners tended to work on the exercises that were at a more advanced level outside the classroom. Excerpts 6 and 7 are examples showing that learners in the higher proficiency group worked on grammar exercises which were at a more advanced level for the seventh graders outside the classroom.

Excerpt 6 (February 10, written by a female student “A” in HP)

*At the cram school,<sup>13</sup> I learned and worked on grammar exercises about “passive form” of future and past tense.*

Excerpt 7 (February 14, written by a male student “J” in HP)

*(At home) I did homework and prepared for the tomorrow’s exam held at the cram school. “Passive form” and “present perfect form” will be targeted in the exam . . . I worked on the grammar exercises provided by the cram school. In the exercises, I found “relative pronoun” which we haven’t learned yet. So, I asked my mother about the new grammar and figured it out.*

In addition to the grammar exercises, the learners in the higher proficiency group were likely to use more advanced forms of the TL and new expressions, which they had learned outside the classroom, to make better sentences and to complete a writing task (Appendix H), as shown in Excerpts 8 and 9.

Excerpt 8 (February 15, written by a female student “A” in HP)

*(At home) when I was doing my homework and writing a letter to my friend in English, I changed the model sentences presented in the textbook little by little by using infinitive phrases which I had learned (at the cram school).*

Excerpt 9 (February 15, written by a female student “C” in HP)

*(At home, when I was doing my homework and writing a letter to my friend in English) I used new expressions which I had learned at “K” (a cram school) . . . When I don’t know how to write in English, I asked my father to help me out.*

The lower proficiency group, on the other hand, did not report the use of these strategies utilized by the higher proficiency group. When they engaged in the writing task, they were apt to use “simplification strategies,” as shown in Excerpts 10 and 11 below.

Excerpt 10 (February 15, written by a male student “M” in LP)

*(In class) I used new words and grammatical forms which I have learned during the class (to write English sentences). I tried not to use difficult expressions but to write simple sentences.*

Excerpt 11 (February 22, written by a female student “P” in LP)

*(In class) I used the model sentences which “P-sensei” (the native*

*English teacher) wrote on the blackboard to write English sentences. I wrote not difficult but simple sentences!*

This finding is consistent with the result obtained in Study 3 (Chapter 6), which showed that there was a negative relation between the use of “*translation and simplification strategies*” and English proficiency.

Lastly, the two proficiency groups differed in the use of strategies for comprehension inside the classroom. For example, although “*guessing*” and “*concentrating on listening*” were often reported by the participants in both groups, the students in the higher proficiency group additionally reported the use of “*analyzing the sentence structures*” and “*focusing on discourse markers*” to better comprehend listening materials. Excerpts 12 and 13, for instance, illustrate the use of “*analyzing the sentence structures*” and “*focusing on discourse markers*,” respectively, by the students in the higher proficiency group.

Excerpt 12 (March 2, written by a male student “F” in HP)

*(In class) When I was doing the picture question task,<sup>14</sup> I attended to verbs and nouns. Then, I applied the structures to the sentence which I had imagined based on the picture before listening to English.*

Excerpt 13 (February 28, written by a female student “G” in HP)

*(In class, when I was listening to English)<sup>15</sup> I tried to get the main ideas of the listening material by focusing on the splits of the sentences, such as “and.” By doing this, I was able to understand*

*and complete the task very well.*

The use of these two strategies was not reported by the students in the lower proficiency group at all. They often utilized “*guessing*” and “*concentrating on listening*” when they listened to English materials. Excerpts 14 and 15 are examples that show the use of “*guessing*” and “*concentrating on listening*” by the students in the lower proficiency group.

Excerpt 14 (March 2, written by a female student “O” in LP)

*(In class, when I was listening to English) I tried to concentrate on the listening activity, and I guessed the meaning of the listening materials based on the words and sentences which I was able to comprehend.*

Excerpt 15 (February 28, written by a male student “T” in LP)

*When I was doing both tasks (i.e., the picture question task and the listening comprehension task), I tried to concentrate on listening to English sentences and to avoid irrelevant distractions.*

The use of these strategies was frequently reported by the learners, probably because their English teacher highly recommended using these strategies during the class as shown in Excerpt 16. In other words, the teacher’s advice seemed to be influential on the learners’ strategy use.

Excerpt 16 (February 28 and March 2, written by the teacher “Y”)  
*Before doing the picture question task, I instructed my students to concentrate on listening to English . . . Before doing the listening comprehension task, I said to my students, “If you have something unknown while listening to English, don’t mind it. Try to guess the meaning of the listening materials based on the parts which you have understood.”*

In short, the findings obtained from the diary data indicate that the higher proficiency learners have a wider repertoire of strategies than do the lower proficiency counterparts and attempt to improve their English by employing some sophisticated strategies (i.e., “increasing the TL input,” “paying attention to language function,” “challenging more advanced forms and materials of the TL,” “maximizing their linguistic knowledge to comprehend English materials”) other than the common strategies, employed by both groups of learners. These sophisticated strategies were not included in the questionnaire developed in Study 2 (Chapter 5) and thus should be incorporated into the revised version of the questionnaire in the future.

### ***Orchestrated Use of Strategies***

As for the manners of strategy deployment, the number of the descriptions recorded in the diaries suggested that the learners with higher proficiency seemed to employ strategies in an orchestrated way more frequently than did the learners with lower proficiency. The importance of the orchestrated use of strategies in learning L2 was discussed by several LLSs researchers (e.g., Anderson, 2005; Grenfell & Macaro, 2007; Gu, 2005; Vandergrift, 2003). The comparisons of the descriptions written by

the learners revealed two differences in combined use of metacognitive and cognitive strategies between the two proficiency groups. One difference was observed in the combined use of a metacognitive strategy (“*planning*”) and some cognitive strategies. The description in Excerpt 17, which was written by a learner in the higher proficiency group, shows that he planned how to read the English texts by previewing the reading task (metacognitive: “*planning*”) and subsequently skimmed the texts (cognitive: “*skimming*”) because the task required the reader to get the main ideas of the texts (see Appendix K for the reading task). He then also checked the details of the texts to complete the task (cognitive: “*scanning*”).

Excerpt 17 (March 7, written by a male student “F” in HP)

*I realized that the reading task of “the Willamina” (the reading texts) was to understand the story line (“planning”). So, I skimmed through the texts (“skimming”) and got the main ideas of the texts. And, I searched for detailed information to complete the task (“scanning”).*

In contrast, the learners in the lower proficiency group combined strategies in a different way when they engaged in the same reading task. For instance, Excerpt 18 shows that although one lower proficiency learner analyzed the reading task (“*planning*”), she consecutively employed “*guessing*,” which seemed to be incompatible with the task demand.

Excerpt 18 (March 7, written by a female student “N” in LP)

*Before reading “the Willamina” (the reading texts), I checked the*

*questions and understood what I had to read (“planning”). Then, I guessed the contents of the texts based on the words which I understood (“guessing”).*

In another reading task that required the readers to scan the text in order to find specific information (see Appendix L), one student in the higher proficiency group stated the use of “*planning*” and a cognitive strategy (“*scanning*”) in an orchestrated way (Excerpt 19).

Excerpt 19 (March 7, written by a male student “F” in HP)

*When I read “I am a mouse” (the reading texts), I first checked the questions attached to the texts (“planning”). Then, I read the texts by focusing on the parts which seemed to be related to the questions (“scanning”).*

On the other hand, a student in the lower proficiency group reported the use of “*planning*” and “*skimming*” in the same reading task as follows:

Excerpt 20 (March 7, written by a female student “S” in LP)

*“I am a mouse” (the reading texts) was easy to understand. I checked the questions attached to the texts (“planning”), and I tried to understand the whole texts (“skimming”).*

These descriptions indicate that the lower proficiency learners did not utilize “*planning*” and other cognitive strategies in a well-orchestrated manner, unlike the

higher proficiency counterparts.

Another difference was found in the combined use of a metacognitive strategy (“*monitoring*”) and some other strategies. For instance, a student in the higher proficiency group described in her journal entry, as shown in Excerpt 21, that after employing “*monitoring*” and identifying her problems, she had utilized several cognitive and social strategies to solve these problems and to write better English sentences.

Excerpt 21 (February 22, written by a female student “C” in HP)

*(In class) I made spaces for unknown words in my speech draft to be able to check them out later (“monitoring”). . . (At home) I referred to my English notebook to clarify the meanings of these words, and used these words in the draft (“using references”). Then, I asked my father to check the draft (“asking others”). He commented that the style used in the draft was too formal. So, I paid attention to the point and rewrote it (“paying attention”).*

Similarly, another student in the higher proficiency group also described such an orchestrated use of strategies to overcome his problems in writing (Excerpt 22).

Excerpt 22 (February 15, written by a male student “F” in HP)

*(In class) when I was modifying the model sentences, I had some unknown words (“monitoring”). So, I asked my teacher to help me out (“asking others”), and I also looked up the unknown words in the dictionary to complete the writing task (“using a dictionary”).*

The learners in the lower proficiency group, on the other hand, tended to simplify their writing when they found it difficult to complete a writing task. Excerpt 23 is an example written by one student in this group.

Excerpt 23 (February 15, written by a male student “L” in LP)

*I can't write difficult sentences in English (“monitoring”). So, I made easier sentences by myself (“simplification”).*

In another example, one student in this group stated that even though he had utilized some cognitive and social strategies to solve his problems in writing, he was inclined to simplify his writing rather than to make better sentences (Excerpt 24).

Excerpt 24 (February 15, written by a male student “K” in LP)

*(At the cram school while I was studying by myself) I found it difficult to write a letter in English (“monitoring”). So, I asked my teacher to help my homework (“asking others”). I also used the electronic hand-held dictionary (“using a dictionary”). And, I tried to use a lot of simple words and phrases as much as possible to write the letter (“simplification”).*

Based on these descriptions, the author claims that the two proficiency groups differed in the way of utilizing strategies. More specifically, the learners in the higher proficiency group tended to select and combine relevant strategies to meet the language tasks and accomplish them efficiently. Thus, the ability to coordinate

strategies with task demands, which has not investigated thoroughly except for a few case studies (e.g., Gan et al., 2004; Ikeda & Takeuchi, 2006; Vandergrift, 2003; Vann & Abraham, 1990), should receive more attention in future LLS research.

### ***Awareness of Strategy Use***

According to the number of descriptions written in the diaries, the higher proficiency learners seemed to be more aware of their strategy use compared with the lower proficiency counterparts. In-depth analysis of their journal entries identified two differences in the awareness of strategy use between the two groups. One was concerned with the understanding of the purpose of each strategy use. The learners with higher proficiency seemed to be more aware of the purpose of each strategy use when they deployed strategies. For example, one student in the higher proficiency group stated the purpose of using a cognitive strategy (“*attending to intonation*”) in a conversation practice carried out during the class as follows:

Excerpt 25 (February 1, written by a female student “I” in HP)

*I attended to intonation since rising or falling intonation is important in question sentences.*

Another example is shown in Excerpt 26 in which one student with higher proficiency described the purpose of employing a cognitive strategy (“*speaking with a loud voice*”) in the same conversation practice.

Excerpt 26 (February 1, written by a female student “A” in HP)

*Those who can speak English very well say that you can't improve English unless you practice to speak English clearly with a loud voice. Therefore, I put my efforts and tried to speak English with a loud voice.*

Further investigations by means of the interviews revealed that the two proficiency groups were different in terms of the degree of explicitness in describing the purposes of strategy use. The higher proficiency learners tended to report the purpose of each strategy use more explicitly than did the lower proficiency learners. One student in the higher proficiency group, for example, stated the purposes of using “*imitating*” by expressing strong desires for improving her pronunciation and speaking ability (Excerpt 27).

Excerpt 27 (reported by a female student “T” in HP)

*(I used “imitating”) because one of the most important things for me is to be able to speak English like native English speakers. By imitating the native English teacher, I can improve my speaking skills.*

The learners in the higher proficiency group also expressed the purposes of strategy use in relation to short-term or long-term goals of English language learning as shown in Excerpts 28 and 29, respectively.

Excerpt 28 (reported by a male student “F” in HP)

*(I used “imitating”) because I was worried about my pronunciation since we would have a speaking test in the following class.*

Excerpt 29 (reported by a male student “D” in HP)

*I tried it (“imitating”) because I want to study abroad in the future and it would be useful for me if I can pronounce English well when studying abroad.*

In the case of the lower proficiency group, only one student expressed purposes of using “*imitating*.” However, as shown in Excerpt 30, she did not clearly mention that the use of “*imitating*” would serve for improving her English pronunciation or speaking skills specifically.

Excerpt 30 (reported by a female student “T” in LP)

*(I used “imitating”) because I want to learn English thoroughly and I want to be able to communicate in English.*

Moreover, other students in the lower proficiency group did not express their purpose of each strategy use explicitly. Excerpts 31 and 32 are examples stated by the learners in this group.

Excerpt 31 (reported by a male student “M” in LP)

*I just thought I should do it (“imitating”). That's it.*

Excerpt 32 (reported by a female student “O” in LP)

*Well . . . I thought I should imitate his pronunciation because “P-sensei” (the native English teacher) is a foreigner and his pronunciation is good.*

According to the qualitative data obtained from diaries and interviews, the learners with higher proficiency seemed to understand well the purpose of each strategy use compared to those with lower proficiency. To be more precise, the higher proficiency learners seemed to be aware that they employed strategies to improve their English language skills, whereas the lower proficiency counterparts tended to utilize strategies without clear purposes. This result corresponds to the findings of Ikeda and Takeuchi (2006) in which higher proficiency readers understood the merit of each strategy use better than did lower proficiency readers. It thus seems that there is a linkage between understanding the purpose of each strategy use and L2 proficiency.

Lastly, another difference was found in understanding the daily strategy use between the two groups. The diary data revealed that learners with higher proficiency seemed to be more aware of their daily strategy use than did those with lower proficiency. For instance, one student in the higher proficiency group was aware that she often employed “using new words” and “evaluating one’s performance” as shown in Excerpt 33.

Excerpt 33 (February 1, written by a female student “A” in HP)

*Because I want to learn new words, I often use these words when I make English sentences. . . As many people say, it is important to check how we performed. So, I always reflect on my performance at the end.*

This finding was corroborated by the interview data obtained from another higher proficiency student. As shown in Excerpt 34, she was highly aware of using a strategy (i.e., “imitating”) on a regular basis and stated that she was accustomed to using the strategy.

Excerpt 34 (reported by a female student “C” in HP)

*At the cram school, I was accustomed to imitating CDs’ pronunciation . . . The school has some CDs, and I regularly try to imitate the CDs’ pronunciation.*

Moreover, other students in the higher proficiency group were also very clear in responding to the interviewer’s questions such as “Are you aware of using this strategy?” and “When did you start using it?”, and they could explain their strategy use explicitly during the interviews as exemplified in Excerpt 35, which was reported by one student in this group.

Excerpt 35 (reported by a female student “I” in HP)

*I used it (“trying to talk with a native English teacher”) intentionally at that time. It was fun to talk with the native English teacher. I intended to make the conversations exciting when I was talking to “P” (the native English teacher) . . . (I have used it) since I entered the lower secondary school. Since then, I have a clear purpose of learning English. I try to talk with “P” (the native English teacher) because I want to be able to communicate in English.*

The students in the lower proficiency group, on the other hand, rarely described this type of awareness in their journal entries. It thus seems that they may not be aware of their daily strategy use. This assumption was supported by the interview data, in which the lower proficiency group was not able to explain how they used the strategies recorded in their journal entries. For instance, in contrast with student “I” in the higher proficiency group (see Excerpt 35 above), student “O” was not sure when she had started using most of the strategies recorded in her own journal entries and could not provide a detailed account of her daily strategy use (Excerpt 36).

Excerpt 36 (reported by a female student “O” in LP)

*(I have used “imitating”) since I was an elementary school student? I’m not sure. . . (As for the use of “planning”) I don’t know when I started using this and I don’t know why I used it.*

Based on these descriptions and reports obtained from the diaries and interviews, it seems that the learners with higher proficiency are more aware of their daily strategy use and are able to report on their strategy use *more explicitly than are* those with lower proficiency. This was also claimed by Takeuchi (2003b), who found that Japanese university students in a higher EFL proficiency group were able to provide a larger amount of explicit descriptions of their strategy use than were those in a lower EFL proficiency group.

### 7.3 Summary

Two major findings were obtained from the present study. First, the analysis of

the learners’ diaries identified the following three components, which constitute the strategy use by the Japanese lower secondary school learners of EFL: A) the types of strategies utilized; B) the manners of strategy deployment; and C) the awareness of strategy use. Second, further analysis of the qualitative data obtained from diaries and interviews showed that the two proficiency groups differed in these three components. For example, compared with the lower proficiency group, the higher proficient seemed to: a) have a wider range of strategies and use some sophisticated strategies (i.e., “increasing the TL input,” “paying attention to language function,” “challenging more advanced forms and materials of the TL,” “maximizing ones’ linguistics knowledge to comprehend materials”); b) deploy strategies in an orchestrated way more frequently and more appropriately with a given language task; and c) be highly aware of their strategy use and understand the purpose of each strategy use and their daily strategy use.

### Notes

1. In addition to the diary method, the think-aloud technique has been utilized to examine the learners’ strategy use in the field of LLS studies (e.g., Vandergrift, 2003; Vann & Abraham, 1990). The think-aloud protocols are especially used to investigate selected skill-specific strategy use with a small number of participants in an experimental setting. The purpose of the present study was, however, to reveal the learners’ strategy use pertaining to various language skills, such as speaking, reading, listening, writing, grammar-learning, and vocabulary-learning both inside and outside of their classroom settings as described in 7.1.1. The author realized that it seemed unfeasible to implement experimental sessions repeatedly and collect

protocol data for these various skills in both learning settings. The think-aloud technique was thus not employed in the present study.

2. In one sense, the diary method is referred to as a retrospective technique since the diary data are usually collected after the language event. However, as Bailey (1991) states, some diarists make notes during a class or conversation, and she claims that “introspection” entails the following three time zones of data collection: “concurrent introspection,” “immediate retrospection,” and “delayed introspection” (pp. 63-4). Nunan (1992) also used the term “introspective” to cover “the research contexts in which the data are collected retrospectively, that is, some time after the mental events themselves have taken place” (pp. 115-6).
3. Using the diary method, Halbach (2000), for instance, illuminated that less successful students were less critical of their own performance and found fewer problems in their learning activities compared with more successful counterparts. Carson and Longhini (2002) also utilized the diary method and found that the learner’s strategy use was variable during an eight-week period and was affected both by individual factors (i.e., learning styles, anxiety) and environmental factors (i.e., the SL learning context). Root (1999), investigating her language learning diary, identified the following four patterns of strategy use: a) strategies actually utilized; b) strategies acknowledged as being possible choices; c) strategies acknowledged but rejected to utilize; and d) strategies modeled by others.
4. The terms, “diary” and “journal,” are often used interchangeably in the field of second language diary studies (Bailey, 1991).
5. In order to avoid affecting the participants’ strategy use due to these

examples, the following oral directions were given to them by the author (i.e., their English teacher) at every journal-keeping session: “These are just examples, which show how to write the journal entries. So, you do not have to use these strategies. Please write what you did and thought in your journals honestly.”

6. The English teacher gave only general comments on the students’ English language learning. No specific comments were made on their strategy use, to avoid affecting their use of strategies.
7. Halbach (2000) and Hall (2008) also reported that some of their participants did not submit their journal entries regularly and that the amount of available diary data decreased. According to Hall (2008, p. 116), this may be due to “the participants’ relatively unpromising circumstances (for example, forthcoming exams, homework, social life, etc.)”
8. Strauss and Corbin (1998, p. 12) use the term “grounded theory” to mean “theory that was derived from data systematically gathered and analyzed through the research process.” According to the authors, in the grounded theory approach, “a researcher does not begin a project with a preconceived theory in mind . . . rather, the researcher begin with an area of study and allows the theory to emerge from the data” (Strauss & Corbin, 1998, p. 12).
9. Ten percent of the samples were selected from each category and checked for the inter-rater reliability, based on the suggestion by Loewen and Philip (2006).
10. This is one of the limitations inherent to the diary method. As was claimed by Bailey and Ochsner (1983), timing, that is, when to verbalize the language learning experiences, would influence the quality of journal entries. This

timing issue may affect the degree of the depth of journal recording, and informants tend to forget some information during the lapse of time between the event and the reporting. To reduce such a limitation, the author attempted to minimize the time lapse between English language learning and the journal-keeping, and also made an effort of data triangulation in the present study. See Yabukoshi (2003) for the methodological review of the diary method.

11. HP means higher proficiency group, while LP means lower proficiency group.
12. See Appendix G for the speaking task.
13. Most of the students participated in this study attended a cram school and/or a private English conversation school. Only one student in HP and two students in LP did not attend such schools.
14. In the picture question task, the students listened to four statements in English and selected the one statement that best describes the picture (see Appendix I).
15. During the class, the students engaged in two listening tasks: a) picture question task described above; and b) listening *comprehension task* (see Appendix J). In the listening comprehension task, the students listened to conversations between two people and selected the best response to each question about the conversations. In her journal entry, student “G” did not specify which listening tasks she was engaging in.

## 8. Conclusion

In this chapter, the major findings of the present studies are summarized. Research and pedagogical implications are then discussed based on these findings. Finally, several limitations of these studies are acknowledged, and possible directions for future research are suggested.

### 8.1 Major Findings of the Studies

The literature review (Chapter 2) indicates that strategy use by Japanese EFL learners at the lower secondary school level has not been fully explored since: 1) there is a lack of valid and reliable strategy questionnaires available to these learners; and 2) qualitative studies with these learners are lacking. Furthermore, the review of literature relevant to LLS research illuminates the following important issues: A) situational differences (i.e., SL/FL learning contexts as well as inside/outside classroom settings) should be taken into account in the investigation of LLSs; and B) a relationship between strategy use and L2 proficiency should be examined both quantitatively and qualitatively. To gain insights into the strategy use by lower secondary school learners and to clarify these issues, the following purposes of the present research, therefore, were set forth: 1) to construct a standardized questionnaire to assess the strategy use, inside and outside the classroom, of lower secondary school students in the Japanese EFL context; 2) to map out their strategy use in relation to the two learning settings by means of a newly-developed questionnaire; and 3) to explore the linkage between their strategy use and their learning results both quantitatively and qualitatively. For these purposes, the author conducted four empirical studies at a lower secondary school. With the aim of creating an item pool for the strategy questionnaire, the author carried out Study 1 (Chapter 4) to elicit a variety of strategies employed by the Japanese EFL

learners and to examine the patterns of their strategy use in terms of learning settings (i.e., inside and outside the classroom). The study identified various strategies to be included in the item pool and revealed that these learners tended to utilize simple cognitive strategies such as “repeating” and “taking a memo,” and that they rarely reported using metacognitive strategies such as “planning” and “self-evaluating.” It was also found that their strategy use appeared to be skill-specific, and the patterns of their skill-specific strategy use seemed to vary in relation to the two learning settings (i.e., in-class and out-of-class settings).

Based on the item pool and the above-mentioned findings, the questionnaire was developed to assess the Japanese lower secondary school learners’ strategy use inside and outside the classroom in Study 2 (Chapter 5). The resulting questionnaire included five factors (i.e., strategy types) for strategy use inside the classroom and five for outside the classroom. The reliability for each sub-scale was satisfactorily high, and the five-factor structures were validated by using a confirmatory factor analysis. The type and the frequency of strategy use by the Japanese lower secondary school learners were then examined by means of the questionnaire developed, and the following six types of strategies were identified: A) “strategies for comprehension” (Factors I-3 and O-3); B) “translation and simplification strategies” (Factors I-5 and O-5); C) “strategies for vocabulary and sentence memorization” (Factors I-2 and O-4); D) “strategies for speaking practice” (Factors I-1 and O-2); E) “strategies for retention while reading aloud” (Factor I-4); and F) “follow-up learning and metacognitive strategies” (Factor O-1). While the former four types of strategies were identified both inside and outside the classroom settings, the latter two types were identified with only one of the settings. The frequency data revealed that: 1) the Japanese EFL learners utilized “strategies for comprehension” most frequently both inside and outside the

classroom; 2) they employed “translation and simplification strategies” with relatively high frequency; and 3) they used some types of strategies (i.e., “strategies for vocabulary and sentence memorization” and “strategies for speaking practice”) differently in relation to the learning settings (i.e., in-class and out-of-class settings). These results seem to be influenced by several variables such as the Japanese EFL context, the learning settings, the teaching methods employed by their teachers, and the stage of the learners’ EFL learning (i.e., in this case of beginning level of EFL learning).

Then, turning to the link between strategy use and learning outcomes, the author conducted Study 3 (Chapter 6) to determine whether there is a positive relationship between the learners’ strategy use assessed by the questionnaire constructed in Study 2 and their learning outcomes measured by an English proficiency test (*GTEC for STUDENTS*). The correlation analyses and the MANOVA showed that there was no positive relationship between the frequency of strategy use and English proficiency among the lower secondary school learners. The author provided the following three possible explanations for this finding: 1) there might have been potential differences in strategy use between higher and lower proficiency learners other than the frequency of strategy use; 2) learners with higher proficiency might have utilized unique strategies in addition to the common strategies included in the questionnaire; and 3) learners’ strategy use might have been more closely associated with achievement rather than proficiency.

To explore the first and second assumptions described above,<sup>1</sup> the author directed her attention to the details on strategy use in Study 4 (Chapter 7). The analyses of the learners’ diary and interview data shed light on different strategy use between higher and lower proficiency groups. For instance, the higher proficiency group

seemed to: 1) have a wider range of LLSs and use some sophisticated LLSs other than the common LLSs employed by both groups; 2) utilize several relevant LLSs to the language task in combination more frequently and appropriately; and 3) be more aware of strategy use, and understand the purpose of each strategy use and their daily strategy use. Accordingly, the findings of Studies 3 and 4 suggest that, rather than the quantity of strategy use (i.e., frequency of strategy use), the quality of strategy use (i.e., orchestrated strategy use and the awareness of strategy use) might be related to the learning outcomes among the Japanese EFL learners of the present studies. In addition, the repertoire of LLSs might be associated with their learning results.

## 8.2 Implications

In this section, the contributions of the present studies are discussed in terms of research as well as pedagogical implications. The first research implication of the present studies is that they are among the first empirical studies to systematically examine the strategy use, inside and outside the classroom, of lower secondary school learners in the Japanese EFL contexts by employing a robustly constructed strategy instrument and by collecting and analyzing qualitative data (i.e., diaries and interviews). The findings of the four empirical studies *therefore could serve as the starting point* for future LLS studies whose target population is Japanese EFL learners at the lower secondary school level.

Secondly, the present studies revealed that, while there was no positive relationship between the frequency of single use of strategy and English proficiency (Study 3), the orchestrated use of strategies and the awareness of strategy use might possibly be related to higher English proficiency (Study 4). These results reconfirm the recent position that several researchers have taken (e.g., Cohen, 1998; Oxford, 2003;

Takeuchi, 2003b) in which a strategy itself cannot be classified as inherently good or bad, but rather as having the potential to be used effectively in the right conditions. In other words, the effectiveness of strategy use would likely be expected only when learners deploy several relevant strategies to the task in combination and they are highly aware of their strategy use. When defining LLSs, we therefore should acknowledge that a strategy itself is neither good nor bad, but rather it has just the potential to be used effectively for successful language learning.

Thirdly, the above-mentioned findings also provide empirical evidence for the recent argument made by several researchers (e.g., Anderson, 2005, 2008; Grenfell & Macaro, 2007; Gu, 2005) that a quantitative difference in strategy use (i.e., frequency of strategy use) is insufficient to determine the degree of success in language learning, and qualitative differences (i.e., the manners of strategy deployment and the awareness of strategy use) may be more related to successful language learning. The qualitative aspects of strategy use therefore should receive more attention and be investigated further since, except for a few case studies (e.g., Gan et al., 2004; Ikeda & Takeuchi, 2006; Vandergrift, 2003; Vann & Abraham, 1990), these aspects have been largely neglected by researchers.

The last research implication concerns a methodological issue. As was shown in Study 4, although learners at the lower secondary school level are still in a developmental stage of cognition, the diary method was found to be available to these younger learners to examine their strategy use if the data collection procedure is carefully designed. Using a diary format to elicit the details of strategy use by younger learners is particularly recommended.<sup>2</sup>

As for the pedagogical implications of these studies, the questionnaire constructed in Study 2 enables students to diagnose which strategies they use

frequently. Such information is beneficial for raising learners' awareness of their own use of LLSs. Mills, Pajares, and Herron (2007) claimed that if students become aware of their strategy use and can assess its effectiveness, they would likely select better strategies for themselves, regulate their use of strategies, and ultimately, enhance their degree of autonomy in language learning. Also, teachers can make use of the questionnaire to gain information about their students' strategy use, and they can better understand how they teach English, since, as was found in Studies 1 and 2, students' strategy use seems to reflect the teaching methods employed by the teachers.

Moreover, teachers should keep in mind that learners' strategy use differs in terms of not only the types of strategies utilized but also the orchestrated strategy use and the awareness of strategy use according to their L2 proficiency levels, as suggested in Study 4. Therefore, in addition to using the questionnaire, it is recommended for teachers to conduct interviews and/or make use of language diaries in order to fully understand their learners' strategy use and help the learners learn English more effectively.

### 8.3 Limitations and Future Directions

Results and implications in research should always be viewed *with some* caution in light of potential limitations involved in particular studies (Mills et al., 2007). The first limitation of the present studies is concerned with sampling: the four studies involved Japanese EFL learners from only one lower secondary school attached to a national university of education, whose students are more proficient in EFL and more motivated to learn EFL than those in ordinary public lower secondary schools. The findings of the four studies therefore may be limited by the particular type of the learners examined, and, as such, caution is urged in generalizing the findings obtained

in the present studies to other populations and settings. Replication studies with other populations, particularly public lower secondary school students, are certainly needed.

Secondly, it is worth noting that learners' self-reports do not always reflect their real cognitive processing (e.g., strategy use) accurately (Seliger, 1983). Ensuring the participants' anonymity and using the empirically validated instruments, however, may have minimized the occurrence of false reports (Gu, 2005). Moreover, as Allwright and Bailey (1991) suggested, the use of multiple data collection methods (i.e., the questionnaire, diary, and interview methods employed in the present studies) may have reduced the threat.<sup>3</sup>

The third limitation relates to the content validity of the strategy questionnaire developed in Study 2. The items of the questionnaire were rigorously selected based on the open-ended as well as the closed-end data (Study 1) and on previous LLS studies. The reliability and the construct validity<sup>4</sup> of the questionnaire were confirmed by means of an exploratory and a confirmatory factor analysis. However, the new insights obtained in Study 4 were not incorporated into the questionnaire used in Study 3 due to the chronological order of the studies. One future research agenda therefore is to revise the questionnaire in order to improve its content validity for assessing the lower secondary school learners' strategy use. For instance, a revised version of the questionnaire should include items with regard to: 1) the sophisticated strategies; 2) the orchestration of cognitive and metacognitive strategies; and 3) the awareness of strategy use, as reported by the learners with higher EFL proficiency in Study 4.

Finally, it should be emphasized that the correlation analyses conducted in Study 3 can investigate only positive or negative links and the degree of the linkage between strategy use and English proficiency. The study thus warrants no causal links between the variables. The causal links should be ascertained in future research, for

instance, by employing structural equation modeling (SEM).<sup>5</sup> Similarly, the results obtained from the qualitative data in Study 4 only provided insights into the potential differences in strategy use between the higher and the lower proficiency groups. A future research agenda thus should be to validate these research findings. More specifically, it should be statistically examined for significant differences in: 1) using sophisticated strategies; 2) orchestrating cognitive and metacognitive strategies; and 3) being aware of strategy use (i.e., the purpose of each strategy use, and daily strategy use) between higher and lower proficiency learners, by employing the revised version of the questionnaire and using some powerful statistical procedures such as SEM. Through such rigorous investigations, we can provide more solid empirical evidence for the patterns of strategy use in terms of English proficiency level.<sup>6</sup> After sufficient knowledge on strategy use is obtained from lower secondary school learners, we can finally move to intervention studies in which we can plan and implement strategy instruction for lower secondary school learners to help them learn English more effectively. The author believes that LLSs can empower students to become self-directed language learners and, ultimately, to attain higher levels of English proficiency as is implied by the following quote: “Give a man fish you feed him for a day, teach a man fishing you feed him for life” (Chinese proverb by Lao Tzu, cited in Gu, 2005, p. 3).<sup>7</sup>

## Notes

1. The third assumption (i.e., the possible linkage between strategy use and achievement) was not investigated since the learners’ achievement data were unavailable for the data analysis (see Note 3 in Chapter 6).
2. Conventional diary studies did not involve using such a format. This was probably

because the participants of those studies were linguists or college-level learners who were highly aware of their language learning and they could record their learning process and their reactions to their own language learning in an open-ended style (e.g., Bailey, 1980, 1983; Carson & Longhini, 2002; Matsumoto, 1989; Schmidt & Frota, 1986; F.M. Schumann & J.H. Schumann, 1977).

3. The use of multiple data collection methods was originally called “methodological triangulation” by Allwright and Bailey (1991, p. 73).
4. The factor structures of the questionnaire were validated by means of confirmatory factor analysis. This means that one type of construct validity of the questionnaire was verified (Koizumi, 2005).
5. See Purpura (1997) for an example of using SEM to demonstrate the causal links between the learners’ reported strategy use and second language test performance (SLTP).
6. Based on his qualitative studies, Takeuchi (2003a, 2003b) suggests that strategy use seems to develop as learners advance their language learning.
7. The author cites this Chinese proverb likening the linguistic elements of English language to “fish” and the ways to learn English to “fishing.”

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## Appendices

### Appendix A-1. The Background Survey (Original Version in Japanese)

#### 英語学習アンケート

年 組 番 (男, 女) 氏名

I. 以下の質問に対して、あてはまる答えに○をつけてください。また、あとの質問にも答えてください。

1) 家庭で日常的に英語を利用していますか? ( はい , いいえ )

2) 英語が話されている国(アメリカ, イギリス, オーストラリアなど)に住んだことがありますか?  
( はい , いいえ )



はいと答えた人は、住んでいた時の年齢と、住んでいた期間を書いてください。  
( \_\_\_\_才~ \_\_\_\_才のころ ) ( \_\_\_\_年 \_\_\_\_ヶ月くらい)

3) 英検や TOEIC Bridge など、学校外で英語の試験を受けたことがありますか?  
( はい , いいえ )



はいと答えた人は、英検の級、TOEIC Bridge、その他の試験の点数などを書いてください。  
(英検 \_\_\_\_級 )(TOEIC Bridge \_\_\_\_点 )(その他 \_\_\_\_が \_\_\_\_点)

4) 現在、塾で英語の授業を受けていますか?  
( はい , いいえ )



はいと答えた人は、1週間あたりの塾での英語の授業時間と回数を書いてください。  
1週間に ( \_\_\_\_分の授業が \_\_\_\_回)

5) 現在、英会話学校(例: ECC や NOVA など)にかよっていますか?  
( はい , いいえ )



はいと答えた人は、1週間あたりの英会話の授業時間と回数を書いてください。  
1週間に ( \_\_\_\_分の授業が \_\_\_\_回)

6) 現在、家庭教師をたのんで、英語を勉強していますか?  
( はい , いいえ )



はいと答えた人は、1週間あたりの家庭教師による英語の授業時間と回数を書いてください。  
1週間に ( \_\_\_\_分の授業が \_\_\_\_回)

7) 自宅での1週間あたりの平均的な英語学習時間を書いてください。  
1週間に ( \_\_\_\_時間 \_\_\_\_分くらい)

Appendix A-2. The Background Survey (Translated Version in English)

English Language Learning Survey

Grade \_\_\_\_\_ Class \_\_\_\_\_ Student No. \_\_\_\_\_ (Mae \_\_\_\_\_, Female \_\_\_\_\_) Name \_\_\_\_\_

1. Read the following questions and circle the one which is true of you. Also, answer the further questions.

1) Do you use English with your family on a daily basis at home? ( Yes , No )

2) Have you stayed in English-speaking countries (e.g., the U.S., England, Australia, etc)?

( Yes , No )

If your answer is "Yes," please write when and how long you had been there.

( between ages \_\_\_\_\_ and \_\_\_\_\_ )( \_\_\_\_\_ year(s) and \_\_\_\_\_ month(s) )

3) Have you taken any English proficiency tests (e.g., STEP test, TOEIC Bridge) outside of school?

( Yes , No )

If your answer is "Yes," please write the grade and/or the scores you had obtained.

(STEP Grade \_\_\_\_\_ )(TOEIC Bridge score \_\_\_\_\_ )(Other test's name \_\_\_\_\_ score \_\_\_\_\_ )

4) Do you attend a cram school and take English lessons there?

( Yes , No )

If your answer is "Yes," please write the lesson hour and the number of lessons per week.

( \_\_\_\_\_-minute lesson \_\_\_\_\_ times per week)

5) Do you attend a private English conversation school?

( Yes , No )

If your answer is "Yes," please write the lesson hour and the number of lessons per week.

( \_\_\_\_\_-minute lesson \_\_\_\_\_ times per week)

6) Do you have a private English tutor and study English with him/her at home?

( Yes , No )

If your answer is "Yes," please write the lesson hour and the number of lessons per week.

( \_\_\_\_\_-minute lesson \_\_\_\_\_ times per week)

7) How many hours do you spend studying English at home? Please write the average hours per week.

( \_\_\_\_\_ hour(s) \_\_\_\_\_ minute(s) per week)

Appendix B-1. The Official Request Form (Original Version in Japanese)

2005年2月15日(水)

XX副校長先生

調査ご協力の依頼

森越 知子

英語科非常勤講師・関西大学大学院博士課程後期課程

拝啓

余寒の候、ますます御健勝のこととお喜び申し上げます。平素は格別のご高配を賜り、厚くお礼申し上げます。このたびはG-TEC(ベネッセ)の実施をありがとうございました。次ページに受験結果を記載しております。つきましては、本校の生徒さんがどのように英語を学習し、英語力を伸ばしているのかを調べるにあたって、アンケート調査のご協力をお願い申し上げます。今後ともご指導、ご鞭撻を賜りますよう、よろしく願い申し上げます。

敬具

【調査目的】中学生にとって効果的な英語学習方略(方法)を調べ、日々の指導にいかす

【調査内容】中学生が教室内外で使用している英語学習方略の種類と使用頻度

【実施予定日】3月上旬~4月下旬の英語の授業時間

【調査対象者】附属中学校(1), 2, 3年生

【調査方法】アンケート(回答選択式)

- ・英語学習方略を提示し、使用頻度を示してもらう
- ・結果は統計的に処理し、特定の生徒のみの回答や、生徒の名前を公開しない
- ・アンケート結果は成績に影響しない

【アンケート項目の例】

英語の授業中に、次のことをどれくらいしていますか?あてはまる数字に○をつけてください。

5. いつもする 4. たいていする 3. どちらでもない 2. あまりしない 1. まったくしない

- |                     |   |   |   |   |   |
|---------------------|---|---|---|---|---|
| 1) 単語を何回も書いておぼえる    | 5 | 4 | 3 | 2 | 1 |
| 2) 教科書の英文を暗唱する      | 5 | 4 | 3 | 2 | 1 |
| 3) 英語を話すとき、文法に気をつける | 5 | 4 | 3 | 2 | 1 |

## Appendix B-2. The Official Request Form (Translated Version in English)

February 15th, 2005

Dear (Name of the vice principal),

In the lingering cold season, I would like to extend best wishes to you. I also would like to express my thanks for your loyal patronage. The other day, we conducted the *GTEC for STUDENTS* at this school, and I appreciate your cooperation. The results of the students' test scores are presented on the next page. In line with this test, I would like to conduct a questionnaire survey with regard to how our students learn English and improve their English proficiency. I appreciate your continuous support for my research project.

Sincerely,

Tomoko Yabukoshi  
Part-time English lecturer  
Ph.D. Degree Program, Graduate School, Kansai University

【Purposes】 To investigate effective English language learning strategies used by lower secondary school students in order to apply the findings to classroom practice

【Content of the questionnaire】 To examine the type and the frequency of English language learning strategy use, inside and outside the classroom, by lower secondary school students

【The date of administration】 Between the beginning of March and the end of April, during a regular English class period

【Respondents】 (7th) 8th, 9th graders at the lower secondary school

【Data collection】 Questionnaire (closed-end format)

- The respondents will be asked to indicate how often they use each strategy presented in the questionnaire.
- The data obtained from the questionnaire will be statistically analyzed, and the responses obtained from a particular student will not be disclosed. In addition, the anonymity of the students is secured.
- The results of the questionnaire will not affect the students' grades.

### 【Examples of the questionnaire items】

How often do you use the following strategies when you learn English during English class? Circle the one which is true of you.

5. Always use	4. Often use	3. Usually use	2. Sometimes use	1. Never use
1) I write a new word many times to learn it.			5 4 3 2 1	
2) I memorize English texts in the textbook and recite them.			5 4 3 2 1	
3) I pay attention to grammar while speaking English.			5 4 3 2 1	

## Appendix C-1. Open-Ended and Multiple-Choice Questionnaires

(Original Version in Japanese)

### 英語学習アンケート

年 組 番 ( 男 , 女 ) 氏名

I. 次のようなとき、英語をどのように勉強していますか？授業中と授業外（自宅学習や塾でなど）のそれぞれの勉強法をできるだけ詳しく書いてください。

①単語をおぼえるとき（例：新出単語をノートや単語帳に整理する、文中で覚える）  
【授業中】

【授業外（自宅学習や塾でなど）】

②文法を学ぶとき（例：ノートにまとめる、大事な部分に下線を引くかマーカーで色をつける）  
【授業中】

【授業外（自宅学習や塾でなど）】

③発音を学ぶとき（例：発音をカタカナで書く、ネイティブの発音のまねをする）  
【授業中】

【授業外（自宅学習や塾でなど）】

④定期テストのための勉強をするとき（例：教科書の本文を暗唱する、ノートを見直す）  
【授業外（自宅学習や塾でなど）】

II. 次のようなとき、上手にできるように、どのような工夫をしていますか？授業中と授業外（自宅学習や塾でなど）にわけて、できるだけ詳しく書いてください。

①英語を話すとき（例：発音やイントネーションに気をつける、ジェスチャー（身振り手振り）を使う）  
【授業中】

(次のページにつづく)

【授業外（自宅学習や塾などで）】

②英文や自由英作文を書くとき（例：辞書を使用する、気に入った文章や表現をまねて書いてみる）

【授業中】

【授業外（自宅学習や塾などで）】

③英語を聞くとき（例：英語を聞く前に内容を予想する、聞いた内容のメモをとる）

【授業中】

【授業外（自宅学習や塾などで）】

④英文を読むとき（例：知らない単語があれば文中で意味を予想する、英文を日本語に訳して考える）

【授業中】

【授業外（自宅学習や塾などで）】

Ⅲ. その他：上記以外の勉強法（例：英語の歌を聞く、NHKのラジオを聞くインターネットを使う）

【授業中に英語をどのように勉強していますか？】

【授業外で英語をどのように勉強していますか？】

Ⅳ. 次の文を読んで、自分にあてはまるものの番号に○をしてください。（複数回答可）

1. 英語の学習計画を立てる
2. できるだけたくさん英語に触れようとしている
3. 英語学習のための目標がある
4. できるだけたくさん英語の学習時間を確保しようとしている
5. 他の人と一緒に英語を練習する
6. 誤りに気づき、そこから学んでいる
7. わからないときは質問している
8. 英語学習の後に、うまく勉強できたかどうか考えている
9. 英検やTOEIC Bridge などを受けて、自分の英語力を試している

Ⅴ. 次の英語活動の中で、あなたが難しいと思うものの番号に○をしてください。（複数回答可）

1. 単語を覚えること
2. 文法を覚えること
3. 発音を身につけること
4. 英文を音読すること
5. 英文を読んで理解すること
6. 英文を書くこと
7. 英語を話すこと
8. 英語を聞き取ること

ご協力をありがとうございました。

## Appendix C-2. Open-Ended and Multiple-Choice Questionnaires

(Translated Version in English)

### English Language Learning Survey

Grade Class Student No. (Male, Female) Name

I. How do you learn English in the following situations? Please describe the learning strategies which you have used in and outside the classroom as clearly as possible.

1. Learning words (e.g., making wordlists, learning in the context)

【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

2. Learning grammar (e.g., summarizing in a note, highlighting the points of grammar)

【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

3. Learning pronunciation (e.g., phonetic-coding by katakana, imitating native speakers of English)

【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

4. Studying for term exams (e.g., recitation of the textbooks, reviewing the notebook)

【Outside the classroom (i.e., at home or at cram schools)】

II. How do you learn English in the following situations? Please describe the learning strategies which you have used in and outside the classroom as clearly as possible.

1. Speaking English (e.g., paying attention to pronunciation and intonation, using gestures)

【In the classroom】

(Continued)

【Outside the classroom (i.e., at home or at cram schools)】

2. Writing English sentences or compositions (e.g., using dictionaries, borrowing expressions which fancy me)  
【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

3. Listening to English (e.g., inferring the content of the materials, taking a memo)  
【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

4. Reading English materials (e.g., inferring unknown words in the contexts, translating into Japanese)  
【In the classroom】

【Outside the classroom (i.e., at home or at cram schools)】

III. Others (e.g., listening to English songs and/or English radio program, using the Internet)  
【How do you learn English in the classroom?】

【How do you learn English outside the classroom?】

IV. Read the following items and circle the ones which are true of you. (multiple answers allowed)

1. I make a plan for English language learning
2. I try to increase the opportunities to use English as many as possible
3. I have some goals to study English
4. I secure sufficient time for studying English.
5. I study English with other people.
6. I pay attention to mistakes and learn from them.
7. I ask questions when I have something unknown.
8. I think over my approach to learning English after lessons or self-study.
9. I check my progress in English by taking English proficiency tests (i.e., the STEP test or TOEIC-bridge).

V. Read the following items and circle the ones which you have found difficult. (multiple answers allowed)

1. Learning English words
2. Learning English Grammar
3. Learning English pronunciation
4. Reading aloud English sentences
5. Reading English sentences
6. Writing English sentences
7. Speaking English
8. Listening to English

Thank you very much for your cooperation.

## Appendix D-1. The Strategy Questionnaire (Ver. 1.0)

(Original Version in Japanese)

### Part A

英語の授業中に、次のことをどれくらいしていますか？あてはまる数字を1つ選び、数字を○で囲んでください。

5. いつもする	(80%~100%)
4. たいていする	(60%~80%)
3. どちらでもない	(40%~60%)
2. あまりしない	(20%~40%)
1. まったくしない	(0%~20%)

1	単語を何回も書いておぼえる	5	4	3	2	1
2	単語カードを作って(カードの表に「単語」、裏に「意味」を書いて)単語をおぼえる	5	4	3	2	1
3	単語の意味を頭の中でイメージして単語をおぼえる(例: "rain" の場合、頭の中で「雨」をイメージする)	5	4	3	2	1
4	単語を声に出しながら、書いておぼえる	5	4	3	2	1
5	単語をノートに整理する	5	4	3	2	1
6	単語を何回も声に出しておぼえる	5	4	3	2	1
7	新しく習った単語は、英語を話すときや書くときにできるだけ使う	5	4	3	2	1
8	単語の規則(例: 動詞に-er をつけると「…する人」を意味する; play-player, sing-singer)を利用して、単語をおぼえる	5	4	3	2	1
9	スベル(つづり)の短い単語など、おぼえやすい単語からおぼえる	5	4	3	2	1
10	赤い下じきで単語をかくして、単語をおぼえる	5	4	3	2	1
11	英文を何回も書いておぼえる	5	4	3	2	1
12	新しく習った文法を使って例文を作る	5	4	3	2	1
13	肯定文(ふつうの文)を疑問文や否定文に変える練習をする	5	4	3	2	1
14	文法をノートにまとめる	5	4	3	2	1

5. いつもする	(80%~100%)
4. たいていする	(60%~80%)
3. どちらでもない	(40%~60%)
2. あまりしない	(20%~40%)
1. まったくしない	(0%~20%)

15	ワークや問題集をする	5	4	3	2	1
16	文法のルールをおぼえる(例: 現在進行形は、be 動詞+動詞の ing 形)	5	4	3	2	1
17	カタカナで単語の読み方を書く	5	4	3	2	1
18	CDの発音をよく聞いて、その発音をまねる	5	4	3	2	1
19	外国人の先生の発音をよく聞いて、その発音をまねる	5	4	3	2	1
20	発音記号を確認する	5	4	3	2	1
21	発音やイントネーション(声の上がり・下がり)に気をつけて、英語を話す	5	4	3	2	1
22	文法に気をつけて、英語を話す	5	4	3	2	1
23	スピーキングテストの前には、英語で話そうと思うことを、前もって考えて、おぼえておく	5	4	3	2	1
24	外国人の先生とできるだけたくさん英語で話すようにする	5	4	3	2	1
25	友達と英語で会話の練習をする	5	4	3	2	1
26	ジェスチャー(身ぶり手ぶり)を使って、英語を話す	5	4	3	2	1
27	単語が思い浮かばなければ、その単語を日本語におきかえて、英語を話す	5	4	3	2	1
28	はずかしがらずに、大きな声で英語を話そうとする	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

29	リラックスできるように、気持ちを落ち着かせてから、英語を話す	5	4	3	2	1
30	(教科書や参考書、辞書などの)例文を少し変えて、英文を書く	5	4	3	2	1
31	むずかしい表現を使わず、かんたんな英文を書く	5	4	3	2	1
32	日本語を英文に直す練習をする	5	4	3	2	1
33	(教科書や参考書、辞書などの)例文をまねて、英文を書く	5	4	3	2	1
34	日本語の1語1語をそのまま英語に直して(直訳して)、英文を書く	5	4	3	2	1
35	わからない単語は、辞書(例:紙の辞書、電子辞書、教科書の後ろにある単語リストなど)で調べて、英文を書く	5	4	3	2	1
36	英語の1語1語を日本語に直して、英文を読む	5	4	3	2	1
37	細かい内容(すべての単語の意味など)よりも、文章全体の意味がわかるように、英文を読む	5	4	3	2	1
38	英文を声に出して読む練習をする	5	4	3	2	1
39	英文を読んで、キーワードに線を引く	5	4	3	2	1
40	自分のわかる単語や文から内容を予想して、英文を読む	5	4	3	2	1
41	教科書の英文をおぼえて、教科書を見ないで声に出して言えるように暗唱する	5	4	3	2	1
42	意味のかたまりで区切って、英文を読む(例: I play tennis / with my friends / after school. )	5	4	3	2	1
43	いろいろな読み方で、英文を声に出して読む練習をする(例:英文を読み、次に顔をあげて、その英文を見ないで声に出してみる / 英文を見ないで、CDを聞いて、1文ずつリピートするなど)	5	4	3	2	1
44	わかる単語や文から内容を予想して、英語を聞く	5	4	3	2	1
45	文のはじまりの単語(例: "Do you. . ." "Are you. . ." "What is. . .?" などの最初の語)に注目して、英語を聞く	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

46	余計なことを考えずに、英語を聞くことに集中する	5	4	3	2	1
47	英語を聞いて、聞いた内容をメモする	5	4	3	2	1
48	細かい内容(すべての単語の意味など)よりも、大体の意味がわかるように、英語を聞く	5	4	3	2	1
49	英語を聞いて、日本語に訳す	5	4	3	2	1
50	聞こえた英語を書きとる(ディクテーションの)練習をする	5	4	3	2	1
51	イラストやタイトルを見て、英文の内容をイメージしながら、英語を聞く	5	4	3	2	1
52	英語の歌(洋楽)を聞いて、歌う	5	4	3	2	1
53	パソコンのソフトやインターネットを使って、英語を勉強する	5	4	3	2	1
54	英語の学習計画を立てる(例:「1日に単語を最低5個はおぼえるように決める」など)	5	4	3	2	1
55	目標をもって、英語を勉強する(例:「英検3級に合格する」など)	5	4	3	2	1
56	英語学習の後に、うまく勉強できたかどうかを考える	5	4	3	2	1
57	英語でわからないところは先生や友達に聞く	5	4	3	2	1
58	友達と一緒に英語を勉強する	5	4	3	2	1

(次のページにつづく)

## Part B

授業外で英語を勉強するとき(例:自宅で学校の宿題をしたり、自主的に英語を勉強したり、塾や英会話学校で勉強したり、家庭教師と勉強したりするときなど)に、次のことをどれくらいしていますか?あてはまる数字を1つ選び、数字を○で囲んでください。

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

1	単語を何回も書いておぼえる	5	4	3	2	1
2	単語カードを作って(カードの表に「単語」、裏に「意味」を書いて)単語をおぼえる	5	4	3	2	1
3	単語の意味を頭の中でイメージして単語をおぼえる(例: "rain" の場合、頭の中で「雨」をイメージする)	5	4	3	2	1
4	単語を声に出しながら、書いておぼえる	5	4	3	2	1
5	単語をノートに整理する	5	4	3	2	1
6	単語を何回も声に出しておぼえる	5	4	3	2	1
7	新しく習った単語は、英語を話すときや書くときにできるだけ使う	5	4	3	2	1
8	単語の規則(例:動詞に-er をつけると「..する人」を意味する: play-player, sing-singer)を利用して、単語をおぼえる	5	4	3	2	1
9	スベル(つづり)の短い単語など、おぼえやすそうな単語からおぼえる	5	4	3	2	1
10	赤い下じきで単語をかくして、単語をおぼえる	5	4	3	2	1
11	自分で単語テストをする	5	4	3	2	1
12	空き時間に、単語カードや単語ノートを見て、単語を確認する	5	4	3	2	1
13	英文を何回も書いておぼえる	5	4	3	2	1
14	新しく習った文法を使って例文を作る	5	4	3	2	1
15	肯定文(ふつうの文)を疑問文や否定文に変える練習をする	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

16	文法をノートにまとめる	5	4	3	2	1
17	ワークや問題集をする	5	4	3	2	1
18	文法のルールをおぼえる(例:現在進行形は、be 動詞+動詞の ing 形)	5	4	3	2	1
19	教科書ガイド(例:『ニュークラウン』の参考書)を使って英語を勉強する	5	4	3	2	1
20	カタカナで単語の読み方を書く	5	4	3	2	1
21	CDの発音をよく聞いて、その発音をまねる	5	4	3	2	1
22	外国人に会い、かれらの発音をよく聞いて、その発音をまねる	5	4	3	2	1
23	発音記号を確認する	5	4	3	2	1
24	発音やイントネーション(声の上がり・下がり)に気をつけて、英語を話す	5	4	3	2	1
25	文法に気をつけて、英語を話す	5	4	3	2	1
26	スピーキングテストの前には、英語で話そうと思うことを、前もって考えて、おぼえておく	5	4	3	2	1
27	外国人とできるだけたくさん英語で話すようにする	5	4	3	2	1
28	友達と英語で会話の練習をする	5	4	3	2	1
29	ジェスチャー(身ぶり手ぶり)を使って、英語を話す	5	4	3	2	1
30	単語が悪い浮かばなければ、その単語を日本語におきかえて、英語を話す	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

31	はずかしがらずに、大きな声で英語を話そうとする	5	4	3	2	1
32	リラックスできるように、気持ちを落ち着かせてから、英語を話す	5	4	3	2	1
33	(教科書や参考書、辞書などの)例文を少し変えて、英文を書く	5	4	3	2	1
34	むずかしい表現を使わず、かんたんな英文を書く	5	4	3	2	1
35	日本語を英文に直す練習をする	5	4	3	2	1
36	(教科書や参考書、辞書などの)例文をまねて、英文を書く	5	4	3	2	1
37	日本語の1語1語をそのまま英語に直して(直訳して)、英文を書く	5	4	3	2	1
38	わからない単語は、辞書(例:紙の辞書、電子辞書、教科書の後ろにある単語リストなど)で調べて、英文を書く	5	4	3	2	1
39	英語の1語1語を日本語に直して、英文を読む	5	4	3	2	1
40	細かい内容(すべての単語の意味など)よりも、文章全体の意味がわかるように、英文を読む	5	4	3	2	1
41	英文を声に出して読む練習をする	5	4	3	2	1
42	英文を読んで、キーワードに線を引く	5	4	3	2	1
43	自分のわかる単語や文から内容を予想して、英文を読む	5	4	3	2	1
44	教科書の英文をおぼえて、教科書を見ないで声に出して言えるように暗唱する	5	4	3	2	1
45	意味のかたまりで区切って、英文を読む(例: I play tennis / with my friends / after school. )	5	4	3	2	1
46	いろいろな読み方で、英文を声に出して読む練習をする(例: 英文を読み、次に顔をあげて、その英文を見ないで声に出してみる / 英文を見ないで、CDを聞いて1文ずつリピートするなど)	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

47	わかる単語や文から内容を予想して、英語を聞く	5	4	3	2	1
48	文のはじまりの単語(例: "Do you..?" "Are you..?" "What is..?" などの最初の語)に注目して、英語を聞く	5	4	3	2	1
49	余計なことを考えずに、英語を聞くことに集中する	5	4	3	2	1
50	英語を聞いて、聞いた内容をメモする	5	4	3	2	1
51	細かい内容(すべての単語の意味など)よりも、大体的意味がわかるように、英語を聞く	5	4	3	2	1
52	英語を聞いて、日本語に訳す	5	4	3	2	1
53	聞こえた英語を書きとる(ディクテーション)の練習をする	5	4	3	2	1
54	イラストやタイトルを見て、英文の内容をイメージしながら、英語を聞く	5	4	3	2	1
55	英語の歌(洋楽)を聞いて、歌う	5	4	3	2	1
56	パソコンのソフトやインターネットを使って、英語を勉強する	5	4	3	2	1
57	授業の予習をする	5	4	3	2	1
58	ノートや教科書を見直して、授業の復習する	5	4	3	2	1
59	授業中に聞き逃した単語や文法は、後で確認する	5	4	3	2	1
60	英語で書かれた本(洋書)や英字新聞などを読む	5	4	3	2	1
61	ラジオ講座、テレビの英語講座、映画(洋画)などを使って、英語を勉強する	5	4	3	2	1
62	英語の学習計画を立てる(例:「1日に単語を最低5個はおぼえるように決める」など)	5	4	3	2	1
63	目標をもって、英語を勉強する(例:「英検3級に合格する」など)	5	4	3	2	1
64	英語学習の後に、うまく勉強できたかどうかを考える	5	4	3	2	1
65	英語でわからないところは家族や友達に聞く	5	4	3	2	1
66	友達と一緒に英語を勉強する	5	4	3	2	1

ご協力ありがとうございます

## Appendix D-2. The Strategy Questionnaire (Ver. 1.0)

(Translated Version in English)

### Part A

How often do you use the following strategies when you learn English inside the classroom? Circle the one which is true of you.

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

1	I write a new word many times to learn it.	5	4	3	2	1
2	I make flashcards to learn new words.	5	4	3	2	1
3	I connect an image or a picture of the new word to help me to learn the word (e.g., if I want to learn the word "rain," I imagine the situation that it is raining).	5	4	3	2	1
4	I read aloud a new word while writing it.	5	4	3	2	1
5	I make vocabulary lists in my notebook.	5	4	3	2	1
6	I read aloud a new word many times to learn it.	5	4	3	2	1
7	I try to use new words while speaking and writing English.	5	4	3	2	1
8	I use some knowledge of vocabulary (i.e., the suffix "er": play-player, sing-singer) to learn new words.	5	4	3	2	1
9	I start with easier words (i.e., short spelling words) when memorizing new words.	5	4	3	2	1
10	I review new words in vocabulary lists.	5	4	3	2	1
11	I write a new sentence many times to learn it.	5	4	3	2	1
12	I make English sentences by using new grammar.	5	4	3	2	1
13	I practice to change an affirmative sentence into an interrogative or a negative sentence.	5	4	3	2	1
14	I summarize new grammatical rules in my notebook.	5	4	3	2	1

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

15	I do grammar exercises / workbooks.	5	4	3	2	1
16	I memorize new grammatical rules (e.g., present progressive form; the use of a form of to be, the infinitive of the verb, and the ending -ing).	5	4	3	2	1
17	I write down how to pronounce a new word in katakana phonetic scripts.	5	4	3	2	1
18	I listen to CD and imitate its pronunciation.	5	4	3	2	1
19	I listen to a native English teacher's pronunciation and imitate his/her pronunciation.	5	4	3	2	1
20	I check the phonetic symbols of a new word.	5	4	3	2	1
21	I pay attention to pronunciation and intonation while speaking English.	5	4	3	2	1
22	I pay attention to grammar while speaking English.	5	4	3	2	1
23	Before speaking tests, I think over what I am going to speak in English and memorize it.	5	4	3	2	1
24	I try to speak English with a native English teacher as much as possible.	5	4	3	2	1
25	I practice English conversation with friends.	5	4	3	2	1
26	I use gestures while speaking English.	5	4	3	2	1
27	I use Japanese to substitute for unknown English expressions while speaking English.	5	4	3	2	1
28	I try to speak English with loud voice without hesitating.	5	4	3	2	1

(Continued . . .)

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

29	I try to relax to relieve tension before speaking English.	5	4	3	2	1
30	I write a new sentence by applying some elements of example sentences presented in the textbooks, references books, dictionaries, etc.	5	4	3	2	1
31	I write simple sentences without using difficult words and sentence structures.	5	4	3	2	1
32	I practice to translate Japanese into English sentences.	5	4	3	2	1
33	I write a new sentence by using example sentences presented in the textbooks, references books, dictionaries, etc.	5	4	3	2	1
34	I translate Japanese into English literally when writing English sentences.	5	4	3	2	1
35	I look up unknown words in the dictionaries (e.g., printed dictionaries, handheld electronic dictionaries, vocabulary lists at the end of the textbook) when writing English sentences.	5	4	3	2	1
36	I translate English into Japanese literally when reading English texts.	5	4	3	2	1
37	I skim a text to get the main ideas (rather than pay attention to the meaning of every word) while reading English texts.	5	4	3	2	1
38	I read aloud English sentences.	5	4	3	2	1
39	I highlight keywords in the texts while reading English texts.	5	4	3	2	1
40	I guess the contents of the material based on the words and the sentences which I understand while reading English texts.	5	4	3	2	1
41	I memorize English texts in the textbook and recite them.	5	4	3	2	1
42	I divide a sentence into meaningful chunks when reading English texts (e.g., I play tennis / with my friends / after school.)	5	4	3	2	1
43	I read aloud English texts in a various way (e.g., I first look at the sentences. I then look up my face and read aloud the sentences without looking at them/ I repeat after the CD without looking at the texts.)	5	4	3	2	1
44	I guess the contents of the materials based on the words and sentences which I understand while listening to English.	5	4	3	2	1
45	I pay attention to the beginning word of the sentence (e.g., "Do you . . . ?" "Are you . . . ?" "What is . . . ?") while listening to English.	5	4	3	2	1

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

46	I try to concentrate on listening to English and to avoid irrelevant distractions.	5	4	3	2	1
47	I take a memo while listening to English.	5	4	3	2	1
48	I try to get the main ideas (rather than pay attention to the meaning of every word) while listening to English.	5	4	3	2	1
49	I translate English to Japanese while listening to English.	5	4	3	2	1
50	I dictate English that I have listened to.	5	4	3	2	1
51	I look at the visual aids and/or the title of the text first and predict its content before listening to it.	5	4	3	2	1
52	I listen to English songs (i.e., Western music) and sing them.	5	4	3	2	1
53	I use PC software and/or the Internet to learn English.	5	4	3	2	1
54	I plan how to learn English (e.g., I have decided to learn at least five new words a day).	5	4	3	2	1
55	I learn English with having some specific goals (e.g., I learn English to pass the third grade of the STEP test).	5	4	3	2	1
56	I think over my approach to learning English after I studied English.	5	4	3	2	1
57	I ask questions of my teachers or friends if I have something unknown.	5	4	3	2	1
58	I study English with my friends.	5	4	3	2	1

(Continued . . .)

## Part B

How often do you use the following strategies when you learn English outside the classroom (e.g., when you do homework and/or voluntarily learn English at home, when you learn English at a cram school and/or a private English conversation school, when you learn English with a private English tutor, etc.) ? Circle the one which is true of you.

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

1	I write a new word many times to learn it.	5	4	3	2	1
2	I make flashcards to learn new words.	5	4	3	2	1
3	I connect an image or a picture of the new word to help me to learn the word (e.g., if I want to learn the word "rain," I imagine the situation that it is raining).	5	4	3	2	1
4	I read aloud a new word while writing it.	5	4	3	2	1
5	I make vocabulary lists in my notebook.	5	4	3	2	1
6	I read aloud a new word many times to learn it.	5	4	3	2	1
7	I try to use new words while speaking and writing English.	5	4	3	2	1
8	I use some knowledge of vocabulary (i.e., the suffix "er": play-player, sing-singer) to learn new words.	5	4	3	2	1
9	I start with easier words (i.e., short spelling words) when memorizing new words.	5	4	3	2	1
10	I review new words in vocabulary lists.	5	4	3	2	1
11	I conduct a vocabulary quiz by myself to check if I have memorized the new words.	5	4	3	2	1
12	I use my spare time and review new words by looking at vocabulary cards and/or vocabulary lists.	5	4	3	2	1
13	I write a new sentence many times to learn it.	5	4	3	2	1
14	I make English sentences by using new grammar.	5	4	3	2	1
15	I practice to change an affirmative sentence into an interrogative or a negative sentence.	5	4	3	2	1
16	I summarize new grammatical rules in my notebook.	5	4	3	2	1

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

17	I do grammar exercises / workbooks.	5	4	3	2	1
18	I memorize new grammatical rules (e.g., present progressive form: the use of a form of to be, the infinitive of the verb, and the ending -ing).	5	4	3	2	1
19	I use reference books corresponding to the school English textbook when I study English.	5	4	3	2	1
20	I write down how to pronounce a new word in katakana phonetic scripts.	5	4	3	2	1
21	I listen to CD and imitate its pronunciation.	5	4	3	2	1
22	I listen to, if I can find, a native English speaker's pronunciation and imitate his/her pronunciation.	5	4	3	2	1
23	I check the phonetic symbols of a new word.	5	4	3	2	1
24	I pay attention to pronunciation and intonation while speaking English.	5	4	3	2	1
25	I pay attention to grammar while speaking English.	5	4	3	2	1
26	Before speaking tests, I think over what I am going to speak in English and memorize it.	5	4	3	2	1
27	I try to speak English, if I can find, with a native speakers of English as much as possible.	5	4	3	2	1
28	I practice English conversation with friends.	5	4	3	2	1
29	I use gestures while speaking English.	5	4	3	2	1
30	I use Japanese to substitute for unknown English expressions while speaking English.	5	4	3	2	1
31	I try to speak English with loud voice without hesitating.	5	4	3	2	1
32	I try to relax to relieve tension before speaking English.	5	4	3	2	1

(Continued . . .)

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

33	I write a new sentence by applying some elements of example sentences presented in the textbooks, references books, dictionaries, etc.	5	4	3	2	1
34	I write simple sentences without using difficult words and sentence structures.	5	4	3	2	1
35	I practice to translate Japanese into English sentences.	5	4	3	2	1
36	I write a new sentence by using example sentences presented in the textbooks, references books, dictionaries, etc.	5	4	3	2	1
37	I translate Japanese into English literally when writing English sentences.	5	4	3	2	1
38	I look up unknown words in the dictionaries (e.g., printed dictionaries, handheld electronic dictionaries, vocabulary lists at the end of the textbook) when writing English sentences.	5	4	3	2	1
39	I translate English into Japanese literally when reading English texts.	5	4	3	2	1
40	I skim a text to get the main ideas (rather than pay attention to the meaning of every word) while reading English texts.	5	4	3	2	1
41	I read aloud English sentences.	5	4	3	2	1
42	I highlight keywords in the texts while reading English texts.	5	4	3	2	1
43	I guess the contents of the material based on the words and the sentences which I understand while reading English texts.	5	4	3	2	1
44	I memorize English texts in the textbook and recite them.	5	4	3	2	1
45	I divide a sentence into meaningful chunks when reading English texts (e.g., I play tennis / with my friends / after school.)	5	4	3	2	1
46	I read aloud English texts in a various way (e.g., I first look at the sentences. I then look up my face and read aloud the sentences without looking at them. / I repeat after the CD without looking at the texts.)	5	4	3	2	1

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

47	I guess the contents of the materials based on the words and sentences which I understand while listening to English.	5	4	3	2	1
48	I pay attention to the beginning word of the sentence (e.g., "Do you . . . ?" "Are you . . . ?" "What is . . . ?") while listening to English.	5	4	3	2	1
49	I try to concentrate on listening to English and to avoid irrelevant distractions.	5	4	3	2	1
50	I take a memo while listening to English.	5	4	3	2	1
51	I try to get the main ideas (rather than pay attention to the meaning of every word) while listening to English.	5	4	3	2	1
52	I translate English to Japanese while listening to English.	5	4	3	2	1
53	I dictate English that I have listened to.	5	4	3	2	1
54	I look at the visual aids and/or the title of the text first and predict its content before listening to it.	5	4	3	2	1
55	I listen to English songs (i.e., Western music) and sing them.	5	4	3	2	1
56	I use PC software and/or the Internet to learn English.	5	4	3	2	1
57	I preview English lessons.	5	4	3	2	1
58	I review English lessons by looking at a notebook and a textbook.	5	4	3	2	1
59	I check out the words and the grammatical rules which I did not understand during the class.	5	4	3	2	1
60	I read English paperbacks and/or English newspapers.	5	4	3	2	1
61	I listen to radio English program, and/or watch English learning program and/or movies in English on TV to learn English.	5	4	3	2	1
62	I plan how to learn English (e.g., I decide to learn at least five new words a day).	5	4	3	2	1
63	I learn English with having some specific goals (e.g., I learn English to pass the third grade of the STEP test).	5	4	3	2	1
64	I think over my approach to learning English after I studied English.	5	4	3	2	1
65	I ask questions of my family or friends if I have something unknown.	5	4	3	2	1
66	I study English with my friends.	5	4	3	2	1

Thank you very much for your cooperation.

## Appendix E-1. The Strategy Questionnaire (Ver. 2.0)

(Original Version in Japanese)

### Part A

英語の授業中に、次のことをどれくらいしていますか？あてはまる数字を1つ選び、数字を○で囲んでください。

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

1	外国人の先生とできるだけたくさん英語で話すようにする	5	4	3	2	1
2	外国人の先生の発音をよく聞いて、その発音をまねる	5	4	3	2	1
3	発音やイントネーション(声の上がり・下がりに)気をつけて、英語を話す	5	4	3	2	1
4	はずかしがらずに、大きな声で英語を話そうとする	5	4	3	2	1
5	新しく習った単語は、英語を話すときや書くときにできるだけ使う	5	4	3	2	1
6	文法に気をつけて、英語を話す	5	4	3	2	1
7	友達と英語で会話の練習をする	5	4	3	2	1
8	ジェスチャー(身ぶり手ぶり)を使って、英語を話す	5	4	3	2	1
9	新しく習った文法を使って例文を作る	5	4	3	2	1
10	単語を何回も書いておぼえる	5	4	3	2	1
11	英文を何回も書いておぼえる	5	4	3	2	1
12	単語を声に出しながら、書いておぼえる	5	4	3	2	1
13	ワークや問題集をする	5	4	3	2	1
14	赤い下じきで単語をかくして、単語をおぼえる	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

15	細かい内容(すべての単語の意味など)よりも、文章全体の意味がわかるように、英文を読む	5	4	3	2	1
16	細かい内容(すべての単語の意味など)よりも、大体的意味がわかるように、英語を聞く	5	4	3	2	1
17	わかる単語や文から内容を予想して、英語を聞く	5	4	3	2	1
18	自分のわかる単語や文から内容を予想して、英文を読む	5	4	3	2	1
19	余計なことを考えずに、英語を聞くことに集中する	5	4	3	2	1
20	英文を読んで、キーワードに線を引く	5	4	3	2	1
21	教科書の英文をおぼえて、教科書を見ないで声に出して言えるように暗唱する	5	4	3	2	1
22	いろいろな読み方で、英文を声に出して読む練習をする(例：英文を読み、次に顔をあげて、その英文を見ないで声に出してみる / 英文を見ないで、CDを聞いて、1文ずつリピートするなど)	5	4	3	2	1
23	英文を声に出して読む練習をする	5	4	3	2	1
24	聞こえた英語を書きとる(ディクテーション)の練習をする	5	4	3	2	1
25	日本語の1語1語をそのまま英語に直して(直訳して)、英文を書く	5	4	3	2	1
26	むずかしい表現を使わず、かんたんな英文を書く	5	4	3	2	1
27	英語の1語1語を日本語に直して、英文を読む	5	4	3	2	1
28	単語が悪い浮かばなければ、その単語を日本語におきかえて、英語を話す	5	4	3	2	1

(次のページにつづく)

Part B

授業外で英語を勉強するとき(例: 自宅で学校の宿題をしたり、自主的に英語を勉強したり、塾や英会話学校で勉強したり、家庭教師と勉強したりするときなど)に、次のことをどれくらいしていますか? あてはまる数字を1つ選び、数字を○で囲んでください。

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

1	授業の予習をする	5	4	3	2	1
2	ノートや教科書を見直して、授業の復習する	5	4	3	2	1
3	授業中に聞き逃した単語や文法は、後で確認する	5	4	3	2	1
4	目標をもって、英語を勉強する(例: 「英検3級に合格する」など)	5	4	3	2	1
5	肯定文(ふつうの文)を疑問文や否定文に変える練習をする	5	4	3	2	1
6	(教科書や参考書、辞書などの)例文を少し変えて、英文を書く	5	4	3	2	1
7	教科書の英文をおぼえて、教科書を見ないで声に出して言えるように暗唱する	5	4	3	2	1
8	英語の学習計画を立てる(例: 「1日に単語を最低5個はおぼえるように決める」など)	5	4	3	2	1
9	日本語を英文に直す練習をする	5	4	3	2	1
10	聞こえた英語を書きとる(ディクテーション)の練習をする	5	4	3	2	1
11	英語でわからないところは家族や友達に聞く	5	4	3	2	1
12	いろいろな読み方で、英文を声に出して読む練習をする(例: 英文を読み、次に顔をあげて、その英文を見ないで声に出してみる / 英文を見ないで、CDを聞いて1文ずつリピートするなど)	5	4	3	2	1
13	英語学習の後に、うまく勉強できたかどうかを考える	5	4	3	2	1
14	新しく習った文法を使って例文を作る	5	4	3	2	1
15	英文を何度も書いておぼえる	5	4	3	2	1
16	新しく習った単語は、英語を話すときや書くときできるだけ使う	5	4	3	2	1

5. いつもする	(80%-100%)
4. たいていする	(60%-80%)
3. どちらでもない	(40%-60%)
2. あまりしない	(20%-40%)
1. まったくしない	(0%-20%)

17	友達と英語で会話の練習をする	5	4	3	2	1
18	ジェスチャー(身ぶり手ぶり)を使って、英語を話す	5	4	3	2	1
19	外国人とできるだけたくさん英語で話すようにする	5	4	3	2	1
20	はずかしがらずに、大きな声で英語を話そうとする	5	4	3	2	1
21	自分のわかる単語や文から内容を予想して、英文を読む	5	4	3	2	1
22	細かい内容(すべての単語の意味など)よりも、大体の意味がわかるように、英語を聞く	5	4	3	2	1
23	わかる単語や文から内容を予想して、英語を聞く	5	4	3	2	1
24	細かい内容(すべての単語の意味など)よりも、文章全体の意味がわかるように、英文を読む	5	4	3	2	1
25	単語を何度も声に出しておぼえる	5	4	3	2	1
26	単語を声に出しながら、書いておぼえる	5	4	3	2	1
27	英文を声に出して読む練習をする	5	4	3	2	1
28	日本語の1語1語をそのまま英語に直して(直訳して)、英文を書く	5	4	3	2	1
29	英語の1語1語を日本語に直して、英文を読む	5	4	3	2	1
30	むずかしい表現を使わず、かんたんな英文を書く	5	4	3	2	1
31	スベル(つづり)の短い単語など、おぼえやすい単語からおぼえる	5	4	3	2	1

ご協力ありがとうございました

Appendix E-2. The Strategy Questionnaire (Ver. 2.0)

(Translated Version in English)

Part A

How often do you use the following strategies when you learn English inside the classroom? Circle the one which is true of you.

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

1	I try to speak English with a native English teacher as much as possible.	5	4	3	2	1
2	I listen to a native English teacher's pronunciation and imitate his/her pronunciation.	5	4	3	2	1
3	I pay attention to pronunciation and intonation while speaking English.	5	4	3	2	1
4	I try to speak English with loud voice without hesitating.	5	4	3	2	1
5	I try to use new words while speaking and writing English.	5	4	3	2	1
6	I pay attention to grammar while speaking English.	5	4	3	2	1
7	I practice English conversation with friends.	5	4	3	2	1
8	I use gestures while speaking English.	5	4	3	2	1
9	I make English sentences by using new grammar.	5	4	3	2	1
10	I write a new word many times to learn it.	5	4	3	2	1
11	I write a new sentence many times to learn it.	5	4	3	2	1
12	I read aloud a new word while writing it.	5	4	3	2	1
13	I do grammar exercises / workbooks.	5	4	3	2	1
14	I review new words in vocabulary lists.	5	4	3	2	1

5. Always use	(80%-100%)
4. Often use	(60%-80%)
3. Usually use	(40%-60%)
2. Sometimes use	(20%-40%)
1. Never use	(0%-20%)

15	I skim a text to get the main ideas (rather than pay attention to the meaning of every word) while reading English texts.	5	4	3	2	1
16	I try to get the main ideas (rather than pay attention to the meaning of every word) while listening to English.	5	4	3	2	1
17	I guess the contents of the materials based on the words and sentences which I understand while listening to English.	5	4	3	2	1
18	I guess the contents of the material based on the words and the sentences which I understand while reading English texts.	5	4	3	2	1
19	I try to concentrate on listening to English and to avoid irrelevant distractions.	5	4	3	2	1
20	I highlight keywords in the texts while reading English texts.	5	4	3	2	1
21	I memorize English texts in the textbook and recite them.	5	4	3	2	1
22	I read aloud English texts in a various way (e.g., I first look at the sentences. I then look up my face and read aloud the sentences without looking at them/ I repeat after the CD without looking at the texts.)	5	4	3	2	1
23	I read aloud English sentences.	5	4	3	2	1
24	I dictate English that I have listened to.	5	4	3	2	1
25	I translate Japanese into English literally when writing English sentences.	5	4	3	2	1
26	I write simple sentences without using difficult words and sentence structures.	5	4	3	2	1
27	I translate English into Japanese literally when reading English texts.	5	4	3	2	1
28	I use Japanese to substitute for unknown English expressions while speaking English.	5	4	3	2	1

(Continued . . .)







5) Today (on Thursday), outside of the school, did you study English other than reading English texts? ( Yes No )  
 go to (6) the end of the questions

6) Today (on Thursday), where did you study English? ( home, the cram school, others [ ] )

7) Today (on Thursday), while you were studying English at the above place, did you use the following strategies 1 to 19? Circle the ones which are true of you.

1. I previewed the English lesson.
2. I reviewed the English lesson by looking at the notebook and/or the textbook.
3. I checked out the words and grammatical rules which I had not understood during the class.
4. I learned English with having some specific goals (e.g., I learned English to pass the third grade of the STEP test).
5. I practiced to change an affirmative sentence into an interrogative or a negative sentence.
6. I wrote a new sentence by applying some elements of example sentences presented in the textbooks, reference books, dictionaries, etc.
7. I memorized English texts in the textbook and recited them.
8. I planned how to learn English (e.g., I decided to learn at least five new words a day).
9. I practiced to translate Japanese into English sentences.
10. I dictated English that I had listened to.
11. I asked my family and/or friends to help me if I have something unknown concerning English.
12. I read aloud English texts in a various way (i.e., I first looked at the sentences. I then looked up my face and read aloud the sentences without looking at them).
13. I thought over my approach to English language learning after I had studied English.
14. I made English sentences by using new grammar.
15. I wrote a new sentence many times to learn it.
16. I tried to use new words while writing English sentences.
17. I tried to secure sufficient time for studying English.
18. I tried to increase the opportunities to use English as much as possible.
19. I paid attention to mistakes and learned from them.

8) How did you use the strategies which you have circled in the above list? Please describe the use of these strategies in detail. Also, if you had used any other strategies in addition to 1 to 19, please describe them as well.

Example: In the case that you have circled the strategies 1, 2, 3, 4, 8, and 11: Today, first of all, I reviewed the English lesson by looking at the notebook and the textbook (2). While I was doing it, I checked out the words and grammatical rules which I had not understood during the class (3). After that, I previewed the next English lesson (1). And, I guessed the meaning of new words based on the context of the texts. Immediately after that, I checked out the meaning by using the dictionary (other than the strategies 1 to 19). When I didn't figure out the meanings, I asked my family to help me out (11). Before going to bed, I reviewed my word list (other than strategies 1 to 19) From now on, let's review the word list before going to bed! (8)


Appendix 6. Speaking Task

Speaking Plus 4

ちよつとお願ひ——許可を求め、依頼する  
 (1) モデル対話 場面: マイクの家の台所で、マイクのお母は紅茶を、マイクは勉強をしています。

1 マイクの部屋に  
お母が来て、  
「お茶、飲んで、  
勉強しなさい」と言われ、  
「はい、いいえ、  
勉強はもう終わりました。」  
と返す。

2 お母さんが、  
「お茶、飲んで、  
勉強しなさい」と言われ、  
「はい、いいえ、  
勉強はもう終わりました。」  
と返す。

3 お母さんが、  
「お茶、飲んで、  
勉強しなさい」と言われ、  
「はい、いいえ、  
勉強はもう終わりました。」  
と返す。



● マイク  
Can I open the window?  
It's hot.  
Can you help me  
with my homework?  
OK, I'm coming.

● お母さん  
Can I open the window?  
Can you help me?  
use this computer  
watch TV now  
talk to you later  
close the window for me  
play tennis with me

● マイクの母  
Sure.  
Sorry, I can't. I'm busy.  
Can you open the door  
for me?



● 先生(先生)  
open → close  
back  
notebook  
homework  
busy  
door  
help → wait

● 先生(先生)  
Step 1  
Step 2  
Option  
● 許可する・依頼するなどの言い方  
Sorry... (お願ひです)  
AU RIGHT.  
OK.  
● 依頼する・断るなどの言い方  
Sorry... (お願ひです)



### Script of the Picture Question Task

Question 1: The answer is B.

- [A] Jenny and her friend are cooking together.
- [B] Jenny and her friend are cleaning together.
- [C] Jenny and her friend are eating together.

Question 2: The answer is B.

- [A] Jeff is trying to catch a fish.
- [B] Jeff is working in the garden.
- [C] Jeff is going running outside.

Question 3: The answer is A.

- [A] Yoshio is unhappy because it is snowing.
- [B] Yoshio is happy driving in the snow.
- [C] Yoshio is unhappy because it stopped snowing.

Benesse Corporation (2006). *STEP Up Drill: Welcome to the Real English World BASIC*.

### Appendix J. A Sample of the Listening Comprehension Task

Listening Part 2

8~9ページで言ったけど、会話問題を解くポイントは2つあったらう？覚えてるかな？

Question 1

What does the man want?

- [A] Newspaper
- [B] Orange juice
- [C] Glass
- [D] Room service

Question 2

Where is Jason going first?

- [A] The bookstore
- [B] The coffee shop
- [C] The library
- [D] The restaurant

Question 3

What is Kaori's little brother doing?

- [A] Visiting a friend
- [B] Reading comic books
- [C] Watching a movie
- [D] Sitting at home

Question 4

What problem did the woman have on her trip?

- [A] The plane came in after the bus had left.
- [B] The bus took her to the wrong hotel.
- [C] The hotel forgot she was staying there.
- [D] The bus arrived at the hotel very late.

聞いてみよう！  
この英文のトピックは何？

①方言の種類 ②言語の学び方 ③世界の言語数

15

**Script of the Listening Comprehension Task**

Question 1: The answer is B.

F: How can I help you?

M: Can I have another orange juice?

F: I'll see if we have any left. Just a moment, please.

M: If you don't have any orange juice, bring me a glass of water, please.

Question 2: The answer is A.

F: Hey Jason, what are you doing today?

M: I'm going to the bookstore first. I'll stop by the coffee shop afterwards. And then

I'm eating an early dinner with one of my friends.

M: Wow! You have a lot planned for today!

Question 3: The answer is C.

M: Hi, Kaori. Is your little brother around?

F: I'm sorry, Kenji. He went to see a movie.

M: That's too bad. I was hoping that he would be home so I could show him a new

comic book I bought.

F: Come back later this afternoon. He should be here then.

Question 4: The answer is D.

M: How was your trip to San Francisco?

F: Well, at least my plane wasn't late this time. It was even a little early.

M: Oh, that's good.

F: But I was very late getting to my hotel. It took the bus more than three hours to drive there from the airport.

Benesse Corporation (2006). *STEP Up Drill: Welcome to the Real English World BASIC*.

