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Strategies in learning Japanese as a second language in secondary school

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Strategies in Learning Japanese as a Second
Language in Secondary School.

By

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Abstract

Strategies used by learners of Japanese as a second language were examined. A total of 26 students, seven male and seven female students in Year 8 and six male and six female students in Year 11 in secondary education from two single sex schools were surveyed to investigate preferred language learning strategies. The instrument used was the Strategy Inventory for Language Learning (Oxford 1990). Six language learning strategy categories were used to classify sample responses. Subjects were also interviewed individually to find out what strategies they used in classroom and non-classroom settings. Students maintained a diary for a six week period to determine the range of strategies used by learners outside the classroom. Results of interview and diary were compared with survey results to provide further information about the relationship of gender and year level with choice of strategy in classroom and non-classroom settings.

Survey results indicated that all of the strategies: memory, cognitive, compensation, metacognitive and social except affective were reported as sometimes used by respondents. Affective strategies were not widely reported and none of these strategies were reported as always or generally used by either gender or year level. The interview and diary analysis revealed that the direct strategies: memory, cognitive and compensation were favoured more than indirect strategies by all respondents in classroom and non-classroom settings.

Table of Contents

List of Figures

Chapter One - The Introduction

The Background to the Study

A major area of second language research in recent years relates to the steps or operations used by learners "to enhance the acquisition, storage, retention, recall, and use of new information" (Ehrman and Oxford 1990, p.312). Most of this research concerns the relationship between learner characteristics, their learning strategies, and the success of these strategies in language learning. However, although there are numbers of studies related to second language learning strategies there is little related specifically to the learning of Japanese as a second language.

Emphasis in the literature (Ehrman and Oxford 1988, O'Malley and Chamot 1990, Oxford 1990, Vann and Abraham 1990) has been to identify those learning strategies which influence the degree of proficiency obtained in a second language. This research has resulted in various schemes of strategy types and it is hoped that by identifying the characteristics of effective learners such strategies may be used to help unsuccessful learners (Vann and Abraham 1990, p. 177).

Results in these studies show that strategies do play an important role in second language acquisition and learning and that there is a number of variables which may contribute to the results, such as age, gender of the learners and the nature of the language task. However, inconclusive results are reported regarding success in helping unsuccessful learners in a second language to employ strategies of their more successful peers (Vann and Abraham 1990, p.177). Moreover, Bialystok (1981) as cited in Oxford and

Crookall (1989) suggests that the use of a strategy is perhaps more related to attitude than aptitude (p.409).

The variations in these findings raise questions as to the relationship of variables that may influence strategy choice among learners in second language learning and acquisition. Ehrman and Oxford (1988) suggest that gender differences occur in social learning strategies where females can be expected to use more "social learning strategies (techniques involving at least one other person) ... than males" (p.253).

Much of the literature (Zimmerman and Pons 1986, Desforges 1989, Oxford and Crookall 1989, Ehrman and Oxford 1990) supports the notion that language learning strategies, or LLSs, are useful in both classroom and non-classroom settings. However, although research is quite extensive in classroom contexts, there is little identification of strategy use in the non-classroom setting.

Another of the principal questions in the literature relates to the classification of strategies and the problem of determining which strategy is the most important in second language learning and acquisition. Oxford and Crookall (1989) identify six strategy types and have created a classification scheme which was used in the present research. The classification scheme includes the strategy types: memory, cognitive, compensation, metacognitive, affective and social. O'Malley and Chamot (1990) argue that such a classification scheme does not list strategies in order of priority and hence does not inform readers about which strategy is most important to learning (p.103). It is conceded by O'Malley and Chamot (1990), however, that this

classification of strategies does provide the foundation for assessing use of learning strategies in second language acquisition. Particular mention is made by O'Malley and Chamot of the contributions of the survey instrument Strategy Inventory for Language Learning, or SILL, as an instrument for such an assessment. The SILL has been used in both secondary and higher education as an instrument for measuring LLSs.

In devising and using the SILL, Oxford and Crookall (1989, p. 411) discovered that motivation, sex and self-perceptions of proficiency were the greatest influences on strategy use. Moreover, it was found that highly motivated students made frequent use of a broad range of strategies. Gender was also found to be an important factor in influencing choice of strategy.

The research of this present study looked to determine if the identified strategy types classified by Oxford (1990) are relevant to the second language learner of Japanese in secondary education and whether such learners rely on certain strategies in particular settings. Furthermore, this research has sought to ascertain if there are any specific patterns adopted by second language learners of Japanese and if these patterns are different from those of other second language learners reported in the literature.

The Significance of the Study

Second language learners of Japanese at the secondary level learn in classroom and non-classroom settings, both teacher-directed and non-directed. It is important for teachers of the Japanese language to identify what language learning strategies are used by learners and how learners make use of the strategies in both classroom and non-classroom settings.

Moreover, teachers should be aware of the range of strategies that provide for learner autonomy in study skills and enhance learner self-direction both within and outside the classroom. Hence, teachers will be able to broaden student awareness of the range of strategies available to them for learning purposes.

Finally, it is important to discover if any specific patterns exist among learners of Japanese in their choice of strategy and in their use of strategy in particular settings. The awareness of LLSs among teachers of Japanese as a second language may be unconscious and this project hopes to raise this awareness to an explicit level and make available any emerging patterns to the wider educational field.

The Purpose of the Study - statement of the problem

The primary purpose of this study has been to investigate the range of LLSs used by secondary high school students learning Japanese in second language classrooms. The study seeks also to determine if the strategies can be defined and organized within existing classification frameworks and if strategies identified vary according to gender or year level. The choice and range of strategies used in classroom and non-classroom settings has been another aspect investigated in this research project. The intention here has been to establish whether learners of Japanese employ specific patterns of strategies to provide for more efficient and effective learning in these settings.

The study also investigated whether more experienced learners use a wider range of strategies to improve performance. Therefore, this research project was designed to determine what differences can be observed in language learning strategies based on gender and year level.

Statement of the Research Questions (including subsidiary questions)

1.   What strategies do learners of Japanese as a second language employ in the learning situation?

Subsidiary Questions

1.   In what settings do learners of Japanese make use of strategies for effective learning?
2.   What differences can be observed in language learning strategies based on gender and year level?
3.   Are there any specific patterns existing among learners of Japanese as a second language in strategy choice?

These research questions can be investigated through the testing of the following hypotheses.

Hypothesis 1:   Strategies in the acquisition of Japanese as a second language are identifiable in the learning situation.

Hypothesis 2:   Learners learn both in and outside the classroom, use a wide range of strategies, and choose appropriate strategies for these settings.

Hypothesis 3:   Gender and year level do play a role in the choice of strategy on the part of the learner.

Hypothesis 4:   The nature of the Japanese language and its diverse writing systems encourage learners to choose particular strategies to learn Japanese.

Chapter Two - Review of Literature

General Literature

This research focuses on language learning strategies, those techniques learners use to help them learn a second language. The "term 'learner' is being used here to refer to any person trying to acquire new knowledge ... regardless of whether this occurs" in the classroom or outside the classroom (Weinstein and Underwood 1985, p. 241).

Interest in language learning strategy research emerged some ten years ago with the question: 'What is a good language learner?' (Cohen and Aphek 1981, Wenden and Rubin 1987, Oxford and Nyikos 1989, Vann and Abraham 1990). Various answers have been presented by different researchers. Weinstein and Underwood (1985) define an effective learner as "responsible for their own learning, ...[and able to] adapt the learning environment to fit their needs and goals" (p.242) and Politzer (1983) cited in Oxford and Nyikos (1989) sees effective learners using "strategies appropriate to their own stage of learning, personality, age, purpose for learning the language, and type of language" (p. 291). Moreover, it is claimed that an effective learner is able to recognize recurring patterns in the language task that are not visible to less effective learners (O'Malley and Chamot 1990, p. 149).

As Rubin (1987) points out such studies look to "defining how learners can take charge of their own learning and ... how teachers can help students become more autonomous" (p.15). Furthermore, O'Malley and Chamot (1990) suggest that "competent individuals are effective because of special ways of processing information" and that some students approach the language

learning task in more successful ways than others (p.2). Rubin (1987) made the assumption that "once identified ... strategies could be made available to less successful learners" (p.20). This notion that special learner strategies might assist second language acquisition represented a movement away from the more conventional view where it was believed that effective learners simply had "aptitude" for learning a language (O'Malley and Chamot 1990, p.100).

O'Malley and Chamot (1990) find benefit in studies of the 'good language learner' in that they demonstrate "that students do apply learning strategies while learning a second language and that these strategies can be identified and classified" (p.3). Rubin (1987), for example, classified strategies under two broad categories: "processes that may contribute directly to learning ... and those that may contribute indirectly to learning" (p.20).

Considerable research has looked at how successful learners are in achieving their language learning goals in the classroom and outside the classroom (Weinstein and Underwood 1985, O'Malley and Chamot 1990), and the kinds of strategies learners use in second language acquisition (O'Malley and Chamot 1990, p. viii). Oxford and Nyikos (1989) and Oxford (1990) suggest that use of appropriate LLSs enable students to take responsibility for their own learning and this is important because learners need to maintain their learning outside the classroom.

The research literature to date has continued to refine and define classification schemes of strategy types. As mentioned Rubin (1981,1987)

devised a two category classification scheme of strategies: those which directly affect learning and strategies that contribute indirectly to learning. Direct strategies included classification/verification, monitoring, memorization, guessing/inductive inferencing, deductive reasoning, and practicing while indirect strategies were seen by Rubin as creating practice opportunities and using production tricks (eg. communication strategies).

More recent work on LLSs, such as Wenden (1987), has focused on cognitive strategies as used by the self-directed learner. Cognitive strategies are defined as those "steps, ... procedures (some observable and others not) learners use to acquire and retain knowledge ... and ... [the] use [of] this knowledge to communicate in a second language" (Wenden 1987, p.573). Wenden was interested in the process that 'underlies' the efficient use of strategies, or metacognition. Metacognition may therefore be considered an indirect strategy in second language learning. Wenden identified two types of metacognitive strategies, Pre-Planning and Planning in Action. Pre-planning involves forming methods of procedure prior to the onset of action (Wenden 1987, p. 580) and includes determining objectives, selection of materials and methods, assessing entering proficiency, and predicting difficulties. Planning in action involves monitoring, evaluating and revising (Wenden 1987, p.583).

O'Malley and Chamot (1990) find work on the distinction between metacognitive and cognitive strategies to be a major contribution to research in LLSs. It is conceded (O'Malley and Chamot 1990, Oxford 1990) that researchers do differ as to what constitutes a metacognitive and cognitive strategy. However, despite problems in definition of the strategies, the

distinction serves to "sharpen the discussion of how strategies function, who uses them, and the conditions under which they can be taught" (O'Malley and Chamot 1990, p. 99). It is also not surprising that "individual researchers often classify a particular strategy differently at different times, in light of new insights" (Oxford 1990, p. 22).

Oxford (1990) devised her classification scheme also using Rubin's direct and indirect strategy terms. In this classification scheme direct and indirect strategies are interrelated with six strategy groups (Oxford 1990, p.15) and the result is considered to be far removed from Rubin's (1981,1987) original direct and indirect types. In Oxford's scheme those behaviours involving direct use of the language are subdivided into memory, cognitive and compensation while those strategies which support language learning although they do not directly involve using the language (or indirect strategies) are subdivided into metacognitive, affective and social (See Figure 1 on the following page). In defining the above classification scheme Oxford and Crookall (1989) and Oxford (1990) incorporated almost all strategy names identified in the research literature. A glossary of their terminology for direct and indirect strategies is provided in Appendix 1.

O'Malley and Chamot (1990) do not apply the direct and indirect strategy distinction to their classification scheme. In identifying strategy types used most frequently by second language learners O'Malley and Chamot (1990) distinguished three broad categories: Metacognitive Strategies; Cognitive Strategies and; Social and Affective Strategies (See Appendix 2). In comparing the Oxford (1990) classification scheme with the O'Malley and Chamot (1990) scheme, this researcher has found that the identified

Figure 1: Diagram of the Strategy System Showing Two Classes, Six Groups, and 19 Sets by R. Oxford (1990), Language Learning Strategies: What every teacher should know, p. 18-21.

CIRECT STRATEGIES
(Memory, Cognitive, and Compensation Strategies)

I. Memory strategies

A. Creating mental linkages
- 1. Grouping
- 2. Associating/elaborating
- 3. Placing new words into a context

B. Applying images and sounds
- 1. Using imagery
- 2. Semantic mapping
- 3. Using keywords
- 4. Representing sounds in memory

C. Reviewing well
- 1. Structured reviewing

D. Employing action
- 1. Using physical response or sensation
- 2. Using mechanical techniques

II. Cognitive strategies

A. Practicing
- 1. Repeating
- 2. Formally practicing with sounds and writing systems
- 3. Recognizing and using formulas and patterns
- 4. Recombining
- 5. Practicing naturalistically

B. Receiving and sending messages
- 1. Getting the idea quickly
- 2. Using resources for receiving and sending messages

C. Analyzing and reasoning
- 1. Reasoning deductively
- 2. Analyzing expressions
- 3. Analyzing contrastively (across languages)
- 4. Translating
- 5. Transferring

D. Creating structure for input and output
- 1. Taking notes
- 2. Summarizing
- 3. Highlighting

III. Compensation strategies

A. Guessing intelligently
- 1. Using linguistic clues
- 2. Using other clues

B. Overcoming limitations in speaking and writing
- 1. Switching to the mother tongue
- 2. Getting help
- 3. Using mime or gesture
- 4. Avoiding communication partially or totally
- 5. Selecting the topic
- 6. Adjusting or approximating the message
- 7. Coining words
- 8. Using a circumlocution or synonym

- 1 1 -

INDIRECT STRATEGIES
(Metacognitive, Affective, and Social Strategies)

I. *Metacognitive* strategies

A. Centering your learning
1. Overviewing and linking with already known material
2. Paying attention
3. Delaying speech production to focus on listening

B. Arranging and planning your learning
1. Finding out about language learning
2. Organizing
3. Setting goals and objectives
4. Identifying the purpose of a language task (purposeful listening/reading/speaking/writing)
5. Planning for a language task
6. Seeking practice opportunities

C. Evaluating your learning
1. Self-monitoring
2. Self-evaluating

II. *Affective* strategies

A. Lowering your anxiety
1. Using progressive relaxation, deep breathing, or meditation
2. Using music
3. Using laughter

B. Encouraging yourself
1. Making positive statements
2. Taking risks wisely
3. Rewarding yourself

C. Taking your emotional temperature
1. Listening to your body
2. Using a checklist
3. Writing a language learning diary
4. Discussing your feelings with someone else

III. *Social* strategies

A. Asking questions
1. Asking for clarification or verification
2. Asking for correction

B. Cooperating with others
1. Cooperating with peers
2. Cooperating with proficient users of the new language

C. Empathizing with others
1. Developing cultural understanding
2. Becoming aware of others' thoughts and feelings
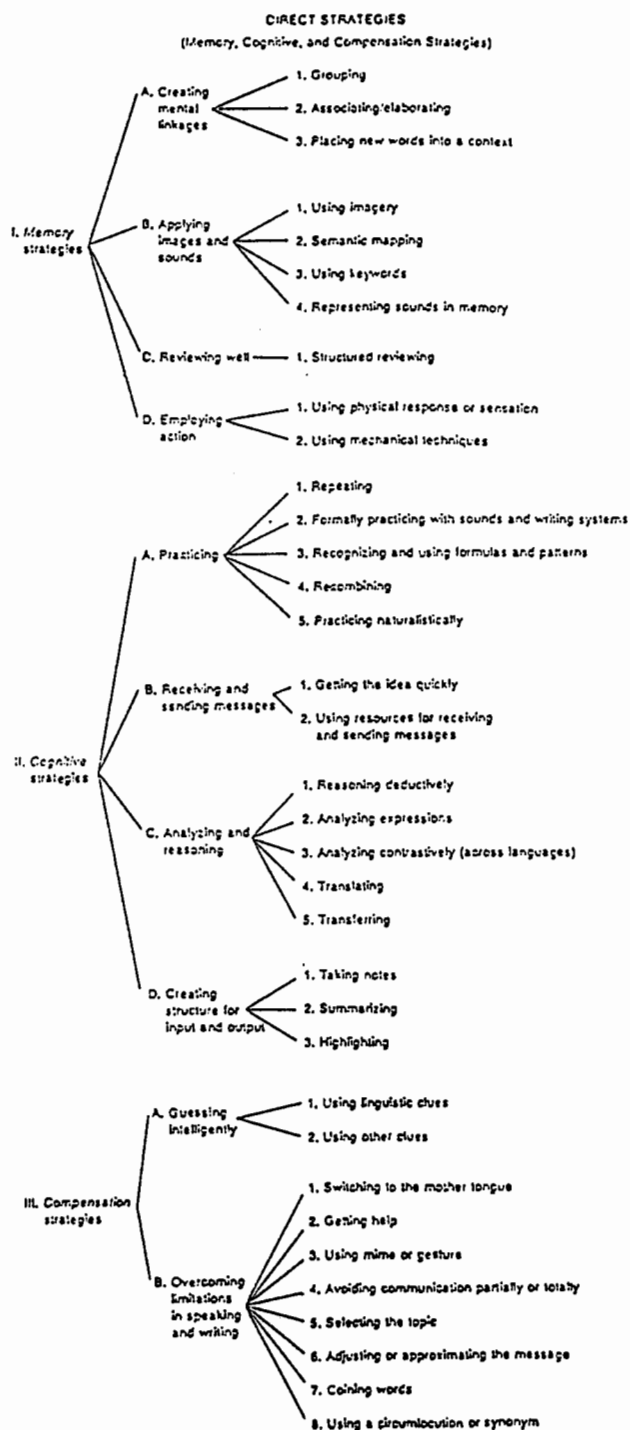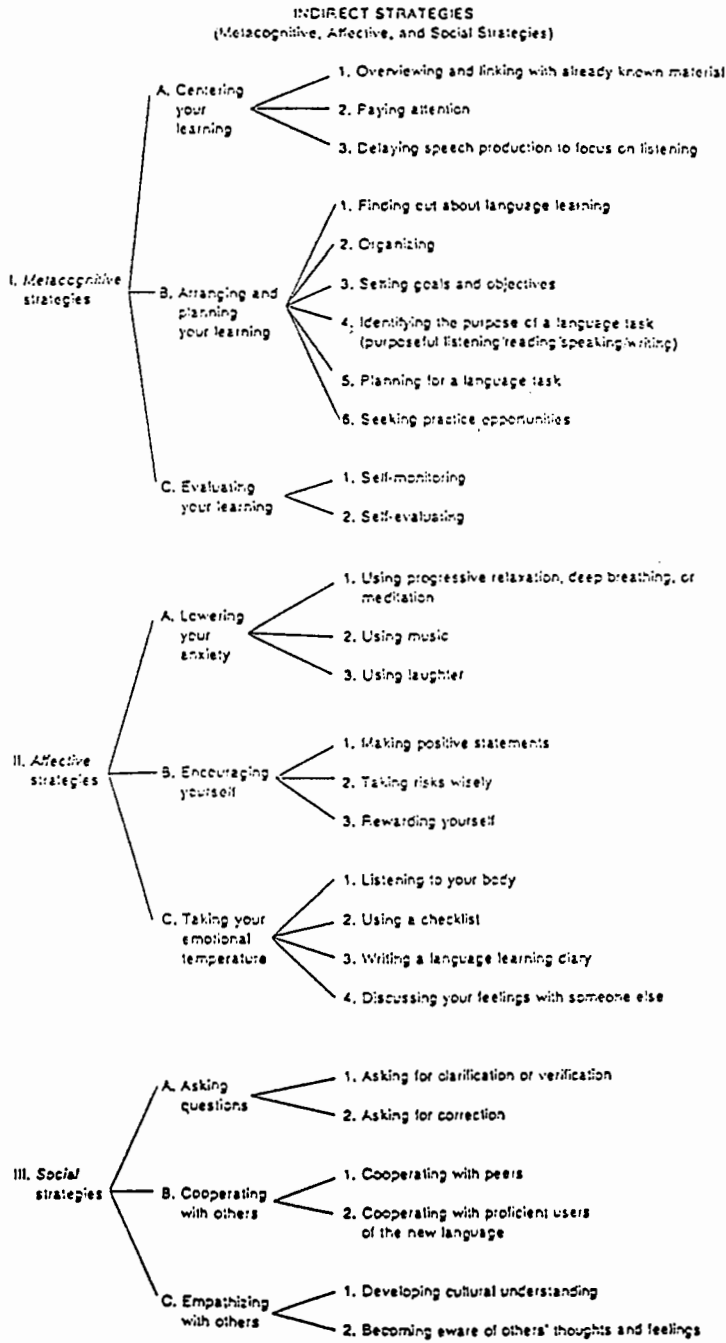
strategies of O'Malley and Chamot (1990) can be accommodated within the Oxford (1990) classification scheme. The strategy groups metacognitive, social and affective as classified by O'Malley and Chamot (1990) correspond to the indirect strategies identified by Oxford (1990). This is also true for the O'Malley and Chamot (1990) cognitive strategy group which Oxford (1990) includes in memory strategies, cognitive strategies, and compensation strategies under the classification type 'direct strategies'.

Oxford and Crookall (1989) did identify one other direct strategy, known as 'communication strategies', which is not identified as a strategy group in later research (Oxford 1990). Learners use communication strategies "when faced with a gap between communicative need and linguistic repertoire" (Wenden and Rubin 1987, p. 3). Oxford and Crookall (1989) identify this as behaviours used only while speaking and conclude that since "communication occurs in the three other language skill areas (reading, listening, and writing) as well as in speaking ... the popular term communication strategies is a misnomer" (p.404). Oxford (1990) distributes behaviours that constitute communication strategies as used above across the three direct strategy groups.

Oxford (1990) describes direct and indirect strategies as providing "mutual support" for each other and Oxford and Crookall (1989) liken direct strategies to a "performer" in a play who "works with the language itself in a variety of specific tasks and situations". Indirect strategies, on the other hand, are identified as more of a "director" who

serves a host of functions, like focusing,

organizing, guiding, checking, correcting,

coaching, encouraging, and cheering the

Performer, as well as ensuring that the

Performer works cooperatively with other

actors in the play. The Director is an *internal*

guide and support to the Performer

(Oxford and Crookall 1989, p. 14-5).

The teacher's role in the classroom, therefore, is to encourage the learner to add the role of the director to that of the performer with the teacher becoming less directive and more facilitating.

O'Malley and Chamot (1990) have criticised the above classification scheme as merely subsuming every strategy that had been cited in the literature on LLSs to date and for generating subcategories that appear to overlap. Oxford (1990) acknowledges the overlap of categories within the scheme and describes this as "natural" (p. 17) and part of the interrelationship of the strategy groups through mutual support.

This research project did not attempt to prioritize strategies in order of importance to learning as recommended by O'Malley and Chamot (1990). Rather this research used the classification scheme as devised by Oxford (1990) because of its practical and pedagogical characteristics rather than stressing a psychological dimension to the categories of strategies through cognitive theory as favoured by O'Malley and Chamot (1990). It seems that these two alternative approaches categorise strategies as classification scheme and taxomony, respectively, and thus reflect the authors' differences in orientation towards LLSs.

Furthermore, it is acknowledged (Wenden and Rubin 1987, O'Malley and Chamot 1990, Oxford 1990) that there is little consensus concerning either definition or classification of strategies in the literature on LLSs. Oxford (1990) describes this as a "conflict" but finds it understandable considering the early stage of development in learner strategy research.

As a result Oxford (1990) cautions the reader that

> *any* current understanding of language
> learning strategies is necessarily in its
> infancy, and *any* existing system of
> strategies is only a proposal to be tested
> through practical classroom use and
> through research (p. 16-17).

This project used and 'tested' the Oxford (1990) classification scheme as described above among learners of Japanese as a second language in a secondary school.

Literature on Methodology and Findings of Previous Work

There have been numerous investigations in language learning strategy research which have "asked the learner to explain or describe how he or she uses strategies" (Oxford and Crookall 1989, p.405). Six main methods of investigation can be identified: observations, interviews and think aloud procedures, note taking, diaries, surveys and studies on LLS training. The present research used three of the techniques of data collection: interview, survey, diary.

Previous research has tended to use one of two interview techniques. The first is to listen to learners think aloud and the second is to interview learners about the types and use of strategies in both classroom and non-classroom settings.

Vann and Abraham (1990) used the think aloud method where learners reported on what they were thinking as they performed tasks to discover reasons for the lack of success of two language learners in completing a language program in different settings. The research was not only able to tally various types of strategies used by learners, but the researchers were also able to link strategies with a particular task and discovered that there was a relationship between task requirements and learner requirements. This raised questions about what strategy training is necessary for learners to become more effective in learning a second language.

In research on self-regulated learning strategies Zimmerman and Pons (1986), using a structured interview, noted that high achievers reported significantly greater use of strategies than low achievers in classroom settings and suggested that attention be given to student use of learning strategies outside the classroom. This research found that high achieving students relied heavily on social strategies in their use of teachers, adults and peers as sources of social support. However, findings were inconclusive in determining a relationship between student achievement and self-evaluation. Furthermore, Zimmerman and Pons (1986) found that the use of interview techniques was successful in accommodating "students who felt reticent about discussing ... [learning strategies], and the procedure appeared informally to work" (p. 626).

Oxford and Nyikos (1989) also distinguished "experts" from "novices" among university students and found, using a survey method, that experts used a wider range of strategies than novices. Moreover, university students were observed to employ more strategies in formal

> traditional, structure-oriented...instructional
> environment geared toward tests and assignments
> [than] strategies which involved a concerted,
> extra-curricular effort to communicate in the
> new language ... or, required working
> independently on ... metacognitive aspects (p.293).

Furthermore, Ehrman and Oxford (1988) and Oxford and Nyikos (1989) reported from survey findings "that *sex* had a profound effect on strategy choice" with female students reporting more frequent use of strategies than male students. Moreover, Oxford and Nyikos found that years spent studying the foreign language had a significant effect on factors such as language practice outside the classroom and guessing what the speaker will say and asking for correction.

Other research survey findings conducted in university settings (Politzer 1983) had already concluded that females and males use different social strategies to learn a second language and that "some language learning behaviours vary significantly according to language and level" (p. 62). O'Malley, Chamot and Kupper (1989) and O'Malley and Chamot (1990) also discovered, among effective and non-effective second language learners, that choice of strategy depended on the degree of expertise in the second language of the students interviewed (O'Malley and Chamot 1990, p.140).

In allowing learners to write about their feelings about language learning and the strategies employed in the learning situation Rubin (1981) discussed the effectiveness of using two types of diary method: self-report and directed diary. In the self-report diary Rubin provided general instructions in the mother tongue to students taking a short intensive English program at a university to elicit lists of LLSs. The students' self-report was written in their native language and then translated into English. It was concluded that this type of diary produced vague and uninformative results. However, student directed diaries as used by Rubin (1981) in eliciting information on cognitive strategies has been more successful when students have been asked to focus on specific strategies rather than the entire range (p. 121).

It is recommended by Rubin (1981) that when using diary study method students are 'tutored' to report on LLSs because without guidance learners may give insufficient detail or get tired of trying to report on too much. Bailey and Long (1983, p. 195-196) in their methodological review of diary studies agree on the above point and in the issue of time intervals in diary reporting. As Rubin (1981) points out it "is important to make notes on ...strategies either during a classroom period or ... immediately thereafter since the rate of forgetting rises and the rate of specificity declines quickly with the passage of time" (p.121). Results of the use of the directed diary show that some individual students "seem better at, and some classroom situations seem more conducive for, reporting on cognitive strategies" than others and students need incentive to continue the task over a long period of time (Rubin 1981, p. 122).

Research on strategies in learning Japanese as a second language in secondary education has not received great attention in the literature to date. Concentration in LLS research has been on studies related to adult university foreign language students (Rubin 1981, Politzer 1983, Ehrman and Oxford 1988, Oxford and Nyikos 1989). Studies related to high school second language learners focus on English as Second Language (ESL) learners (Pearson, 1988, O'Malley, Chamot and Kupper 1989, O'Malley and Chamot 1990), a small range of other languages (Cohen and Aphek 1981), and studies on self-regulated learning strategies in secondary education (Zimmerman and Pons 1986).

The literature specifically related to Japanese as a second language is focused on identifying strategies in one of the four skills; listening, speaking, reading and writing. Uzawa and Cumming (1989) report on strategies in writing Japanese as a foreign language. In surveying intermediate adult learners of Japanese as a foreign language Uzawa and Cumming collected data on writing behaviours. It was reported that

> lack of vocabulary in Japanese made writing
> most difficult ... [and] ... dictionaries were of
> little assistance, since ... definitions ... were not
> clear and ... interpreting the Chinese characters
> was troublesome ... [and] ... grammar was also
> difficult (p. 180).

This may suggest that learners of Japanese as a second language may have difficulty with the strategy of recombining and constructing meaningful

sentences using existing knowledge. Furthermore, learners may have low use of metacognitive skills of overviewing and linking since this strategy involves "previewing the basic principles and/or material ... for an upcoming language activity, and linking these with" previously known material (Oxford 1990, p. 152).

Moreover, Uzawa and Cumming (1989) reported that any note-taking was conducted in the mother tongue by students and that drafting and revising compositions were important aspects of their writing in Japanese. Oxford (1990) finds the direct strategy of "structured reviewing" as applicable to all four skills and for "remembering new material in the target language" and has a "spiral" effect when the new material is practised over and over again (p. 66). The findings of Uzawa and Cumming (1989) suggest that memory strategies may be used quite frequently by learners of Japanese as a second language since memory strategies help language learners cope with the difficulty of vocabulary learning (Oxford 1990, p. 39). Furthermore, as the data from Uzawa and Cumming (1989) suggest a high use of the mother tongue in writing Japanese one may assume that the cognitive strategies of translating and transferring are in frequent use among learners of Japanese as a second language. However, although translating "allows learners to use their own language as the basis for understanding ... the new language" (Oxford 1990, p. 84) word-for-word translating "can ... provide the wrong interpretation of target material" (p. 85).

Horiba (1990) investigated comprehension processes of adult native speakers of Japanese and second language learners of Japanese in a university setting. Comprehension processes were examined where they "occur as a

person reads a text and what a reader remembers and recalls after the text has been read" (p. 190). It was found that second language learners

> whose command of the language is limited
> pay more attention to vocabulary and
> grammar than do L1 [first language]
> readers, whose behaviour is automatic
> in such lower-level processes. They
> attend more to meaning of the text
> (p. 197).

This may suggest a low use of Oxford's identified direct strategies of inferencing and elaboration on the part of second language learners of Japanese. Indeed Horiba noted a higher usage of inferencing and elaboration amongst the native speakers of Japanese.

However, Horiba (1990) noted that frequently second language learners of Japanese are successful in "figuring out the meaning of unfamiliar vocabulary and sentences by utilizing available contextual information" (p. 197). This would equate with the Oxford (1990) memory strategies of 'creating mental linkages'.

Horiba (1990) concluded that the classroom needs to provide activities that include "practicing specific strategies for vocabulary and syntax recognition and inference-making" (p.199).

Identification of Key Terms and Definitions

After reviewing the general literature the following definitions and key

terms were adopted for this research project. Firstly, learning a second language refers to the acquisition of a language other than the mother-tongue. From second language acquisition theory

individuals are said to 'process' information, and thoughts involved in this cognitive activity are referred to as 'mental processes'. Learning strategies are special ways of processing information that enhance comprehension, learning, or retention of the information O'Malley and Chamot 1990, p. 2).

The identification of 'mental' processes or 'cognitive processes' (Rubin 1981, p. 117) that enhance language learning is an ongoing project in the current literature. This study accepts Rubin's view that cognitive processes are those general actions which contribute directly to learning and cognitive strategies as the specific actions which contribute directly to the learning process (p. 118).

Moreover, "the process that underlies how language learners select and evaluate strategies in the course of learning is known as metacognition" (Wenden 1987, p.573). Metacognitive strategies, therefore, coordinate the learning process and help learners regulate their own cognition by assessing how they are learning and by planning for future learning (Oxford 1990, p. 15-16).

This view of second language learning strategies as techniques learners use to acquire and retain knowledge and regulate cognition is different from the notion that successful language learners simply have an "ear" for

language or that individuals have an inherent ability for language learning(O'Malley and Chamot 1990, p. 2) or that there is little that could be done by the learner to improve language comprehension and memory (Weinstein and Underwood 1985, p. 242).

Chapter Three - Methodology

Design of the Study

The design of the study was in essence correlational. It was not possible to establish a cause-effect relationship between genders and year levels. Both quantitative and qualititative data were collected and analysed. The design consists of three parts:

1. obtaining student preferred strategies using the SILL

2. exploring student range of strategies using a qualitative interview approach, and

3. requiring student sample to maintain a diary to identify non-classroom strategies used.

Sample

Information was gathered from two sample schools (one boys' and one girls' school) at the secondary level. Seven boys and seven girls from Year 8 and six boys and six girls from Year 11 participated in the research with a total of 26 subjects.

	Year 8	Year 11
Girls	7	6
Boys	7	6

The participants in the study were all second language learners of Japanese. The research identified the sample by age, sex, and as either a Year 8 beginner or, as a continuing student in Year 11 (who had had at least three years study in the Japanese language). The total sample completed all three data collection instruments with the exception of one Year 11 male who did not complete the diary and interview. Three year 8 male interviews were not transcribed due to technical difficulties. Of the 25 students asked to complete the diary 19 students returned the instrument to the researcher.

Description of the Instruments Used

Three data collection instruments were used to gather information on strategies used by learners of Japanese as a second language.

1. Survey

2. Interview

3. Diary

The student sample completed a survey of preferred language learning strategies as part of the quantitative study. The instrument used for the survey was the Strategy Inventory for Language Learning (SILL) - Version 5.1 (See Appendix 3). Permission in writing was granted from the authors' publishers in New York for the copy and use of this survey.

The SILL gathered data on the sample to identify LLSs that reveal the range and use of strategies. The SILL was used to classify strategies to find out

if any specific patterns occur related to year level and gender. Furthermore, the SILL is designed to elicit information about choice of strategy in preparation for a task, while engaging in it, and the recall or checks made after the task is completed. The research used the six category classification scheme as produced by Oxford (1990) to find out which strategies students use in language learning. Students were asked to rate their use of a particular strategy on a five point scale. The SILL took approximately 30 minutes to complete.

According to Oxford (1990), versions of the SILL were used in various research projects to identify strategy types within the Oxford classification scheme. The SILL version 5.1 used in this research consists of 80 items and is a revised version of a previous 121-item SILL. Although the reliability and validity data are yet to be assessed for version 5.1, the 121-item version of the SILL "had internal consistency reliability ... [of] .96 for a 1,200-person university sample ... content validity is .95, based on classification agreement between two independent raters" (Oxford 1990, p. 255).

An individual interview (see Appendix 4) was divided into two parts

Part 1.   Classroom Settings
Part 2.   Non-classroom Settings.

The interview was conducted with the sample to determine the range and variety of strategies used in both settings and to elicit any special techniques normally used by learners in these settings. Moreover, the interview was

designed to correspond with the six category classification scheme of the SILL. A general question to identify main strategies employed by learners was asked at the beginning of each part. The interview was conducted to provide elaboration or clarification of data collected in the SILL and to elicit information on classroom and non-classroom strategy use.

Interviews were scheduled individually with the student sample at both schools and took approximately 20 minutes. Moreover, the students were interviewed on cassette tape to allow for informal interview setting and for the researcher to review and make appropriate notes at a later date. A transcription of the interviews was made afterwards to note the LLSs identified by each student, the class level and any special strategies subjects used in particular settings.

The third instrument used in this research project was a diary that the students kept for a period of six weeks. The diary was used to identify the range of strategies used by the sample in a non-classroom setting. The identified strategies from the diary then provided information to help distinguish between strategies used in classroom and non-classroom settings. A set of guidelines in English (See Appendix 5) was designed by the researcher to ensure that the sample provided sufficient detail on strategies employed in a non-classroom environment. The students were required to complete the diary after engaging in homework and activities outside the classroom.

At the beginning of the 1993 school year 26 subjects completed the SILL survey. The SILL was administered to each sample school separately during the data collection period. Permission was granted in schools for the use of necessary equipment and facilities.

Upon distribution of the SILL to the sample oral instructions were provided. These instructions were also outlined on the survey in written form. Time was provided for questions. It was stressed to students that answers should be in terms of how well the statements describe themselves, and not in terms of what they think they should do or what other people think.

The students answered each of the questions in the six categories of the SILL with a response of either 1,2,3,4 or 5 to represent a rating of low to high use of reported strategies. The students then marked their responses on a separate answer sheet which was able to be detached from the SILL. The pilot test revealed a typing error on the SILL for the explanation of response '5'. This was manually corrected before copying. The pilot test also signified that 30 minutes was sufficient time to complete the SILL.

The students were individually interviewed at a pre-arranged time after the SILL was completed. The pilot test revealed that the sample in each year needed to complete their interviews in the same week. This was to prevent sample discussion of the interview and moreover, to prevent the cumulative effect of the sample becoming aware of what was required of them in terms of the other instruments. The researcher designed an interview timetable for

each school so that each sample year completed the interview as promptly as working conditions allowed.

The researcher conducted all of the interviews and provided oral instructions to the sample prior to commencement. A set of questions (see Appendix 4) was used as a guide to elicit sample responses. The pilot study revealed that a column for checking questions asked was needed to prevent the researcher from missing any questions. This was added to the interview question page. Moreover, although questions were fairly clear in terms of understanding, it was necessary for the researcher to sometimes remind the sample which setting, classroom or non-classroom, was referred to in the question.

In week one of the data collection period the researcher distributed to each student an exercise book which was used as a diary. The researcher went through the guidelines (See Appendix 5), as they appeared in the front of each diary, and time was allowed for questions from the sample. The guidelines addressed issues raised by the literature review on diary studies mentioned in earlier chapters. Pilot testing revealed that these guidelines were effective. The diary was maintained by students for a six week period and students met with the researcher each fortnight to monitor and check progress.

Data Analysis Procedures

The three sources of data were analysed in the following ways:

<u>Source One:</u> Survey - Strategy Inventory for Language Learning (SILL)

Survey data were analysed via the SYSTAT statistical package and the following analyses were undertaken:

1. Frequency count for all respondents in the six categories for gender and year level.

2. Mean responses for each of the six categories of memory, compensation, cognitive, metacognitive, affective and social.

3. Correlation analysis using (Pearson Product Moment Coefficient) based on gender and respondents year level.

4. T tests of significant difference were conducted between:

      a. genders

      b. year levels

for each of the six strategy types in the SILL.

Data from the survey were analysed to determine if a significant relationship existed between genders and year levels.

Source Two: Individual Interviews

Interviews were taped and transcribed. For each interview strategies used by learners were grouped into the same six categories as used by the survey instrument. Inter rater reliability was established by an independent observer using the above six categories. There was 98% agreement between the researcher and the observer and when the observer disagreed on any questions discussion occurred. Only 3 responses out of the possible 80 items were disputed and this was resolved by negotiation. Agreement was easily reached.

Source Three: Diary

For each diary responses were categorised according to the same six strategy types used in the SILL. The diary was a structured self-report instrument designed for students to write about strategies employed in a non-classroom setting.

Limitations of the Study

Selection of a sample from two single sex schools may mean that such external variables as the teacher, peers and school environment could affect student motivation to learn Japanese. However, the use of students from just two schools is deliberately limited to ensure that a thorough examination of the research questions was possible.

Moreover, clearly the nature of the task undertaken by the learner will affect strategy choice. However, this research is not task specific and only identifies the range and variety of strategies employed. Thus, this variable was not investigated.

Motivation and attitude of the student were excluded from the scope of the research as variables. However, it is important to acknowledge the potential of these variables for impacting on the research questions and the possibility of their interrelationship with identified variables of gender and year level. Attitude towards and motivation for learning Japanese may also potentially affect choice of learning strategy and range of strategies employed among learners.

Oxford and Nyikos (1989) have noted that

> motivation had a pervasive influence on the
> *reported use of specific kinds of strategies,*
> as well as on the degree of active involvement
> in language learning as reflected in the *overall*
> *frequency of strategy use in general* (p.295).

It is likely that learners who are highly motivated to learn a language will use a variety and wider range of strategies. However, it would be difficult for this research to control for all the extraneous variables which may affect the motivation of learners to learn Japanese.

Chapter Four - Results and Findings

Research Question One.

To answer the first research question, that is, what strategies do learners of Japanese employ in the learning situation, the SILL has provided information on each of the six learning strategies: memory, cognitive, compensation, metacognitive, affective and social. Figure 2 shows an overall graph of SILL averages for each of the six categories. The graph was devised from Oxford's SILL graph (See Appendix 3).

The overall average for each category indicates how frequently the LLS was reported by learners in general. All strategies except Affective were shown to be sometimes used by learners. The affective area is generally not used by the respondents. The most widely recorded strategies were compensation, metacognitive and social with an average between 2.5 and 3.4 yet it is significant to note that there are no strategies which respondents always use or generally use.

Key to understanding averages:

High	Always or almost always used	4.5 to 5.0
	Generally used	3.4 to 4.4
Medium	Sometimes used	2.5 to 3.4
Low	Generally not used	1.5 to 2.4
	Never or almost never used	1.0 to 1.4
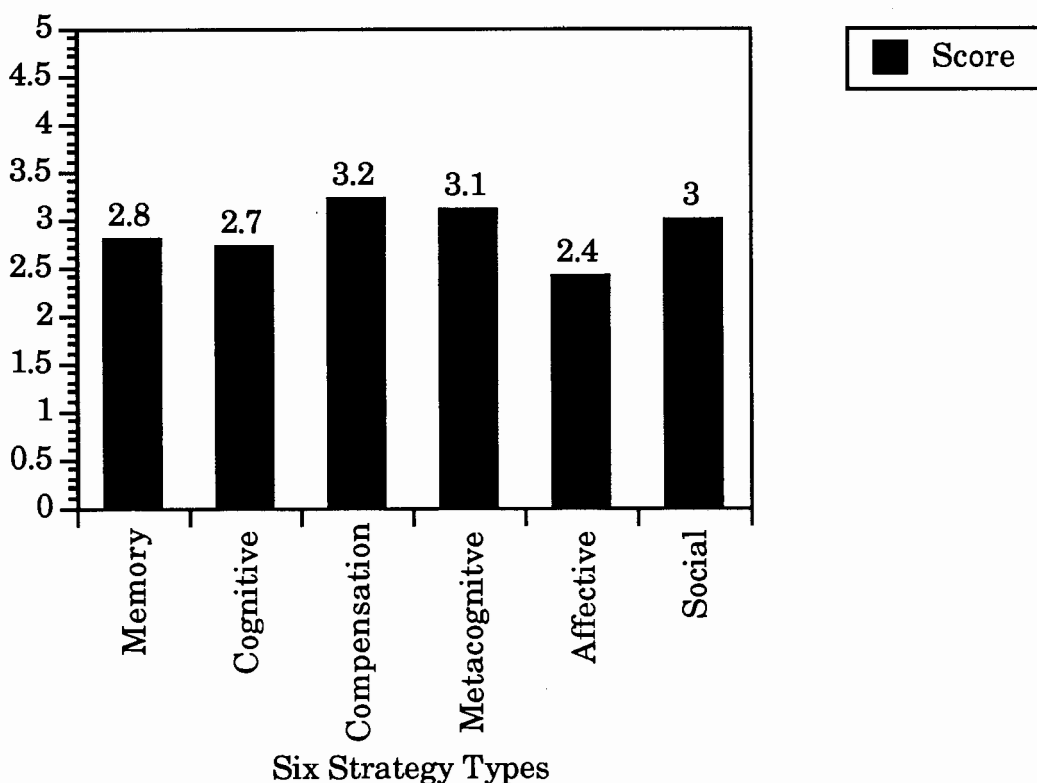
Figure 2. Overall average for six strategy types.

Subsidiary Research Question One.

To answer the first subsidiary research question, that is, in what settings do learners of Japanese make use of strategies for effective learning, the researcher noted the range of strategies mentioned by learners in both classroom and non-classroom settings on the interview analysis sheet (See Appendix 7) and the range of strategies learners used of out class time as reported in the diary (See Appendix 8). The analysis revealed that direct strategies were favoured widely in both settings by all respondents.

Of the memory strategies reported by the students in the interview, creating associations was widely favoured in class by females but not out of

class. Students go back to refresh their memory of previous work in and out of class yet structured reviewing was popular with males only during class time and with both genders out of class. Moreover, students reported in the interview using flashcards widely out of class but only females favoured this technique during class time and reported its frequent use in the diary. Other strategies favoured out of class in the interview by most students included making lists and placing new words in groups with similar types of words.

An analysis of cognitive strategies in the interview revealed that students in class often take notes and use reference materials available to them. However, students do not analyse contrastively and tend not to be careful about translating word-for-word in the classroom. On the other hand, out of class students responded in both interview and diary as preferring to make summaries of new material. However, participating in activities out of class and using resources to practise the language were not favoured in the interview by the respondents in non-classroom settings. It is significant to note that students in the interview did not report using the technique of saying or writing new expressions repeatedly out of class yet it is apparent from the diary that this technique is used often to practise Japanese characters and new words.

In the compensation area no strategies were reported in the diary and only two strategies were reported as significant in the interview: using contextual clues and asking others for verification. Students in class either used resource materials available to them or asked their teacher or other students to verify understanding but preferred out of class time to compensate for the absence of these strategies by using contextual clues when having difficulties in reading or listening.

Among the indirect strategies reported in the interview most students in class and all students out of class use the metacognitive strategy of arranging their physical environment to be conducive for learning. Out of the classroom female students showed preference for previewing lessons. Few students had study timetables to arrange their time outside class for effective learning. This is also true for responses in the diary with very few students reporting use of the above mentioned metacognitive strategies outside class.

Affective strategies were not widely reported by Year 8s in the interview whereas Year 11s reported themselves as sometimes having someone to talk to about their feelings and problems with language learning. In class students tended not to speak about problems with anyone and out of class only half the respondents had someone to discuss problems with. Neither gender or year reported any significant affective strategies in the diary.

Finally, from the interview social strategies were widely favoured in class with students often working with others and having regular language partners. Out of class only female students favoured these strategies widely in both interview and diary. Male students tended to favour working alone with few males stating that they worked with other students during free periods at school.

Subsidiary Research Question Two.

In answering the second subsidiary research question, that is, what differences can be observed in language learning strategies based on year

level and gender, respondents' answers in the SILL were examined under each of the six categories of LLSs. A correlation analysis using the Pearson Product Moment Coefficient showed no consistent overall pattern between gender or year level (See Appendix 9).

From the data analysed, in the direct strategy area, no relationship of significant difference was found within the compensation area while Year 8 males and Year 11 males were found to be significantly different in their use of cognitive strategies. Significant difference was also established between Year 11 males and Year 11 females in memory strategies and between year levels within the cognitive area. On the other hand, significant difference occurred in all the indirect strategies of metacognitive, affective and social with Year 8 males and females reporting varying responses to SILL items in all of these indirect strategy areas. Significant difference was also reported between Year 8 males and Year 11 males in the above areas with the exception of affective strategies.

In Figure 3 and Figure 4 the overall averages for each strategy area for gender and year level are shown respectively. From Figure 3 it is apparent that females tend to use strategies slightly more than males do with the greatest significance in the affective area. Between years, as seen in Figure 4, it seems that compensation and social strategies are used more widely by Year 11s than Year 8s who only sometimes use these strategies. Neither gender or year level has a high frequency of use of any one strategy.
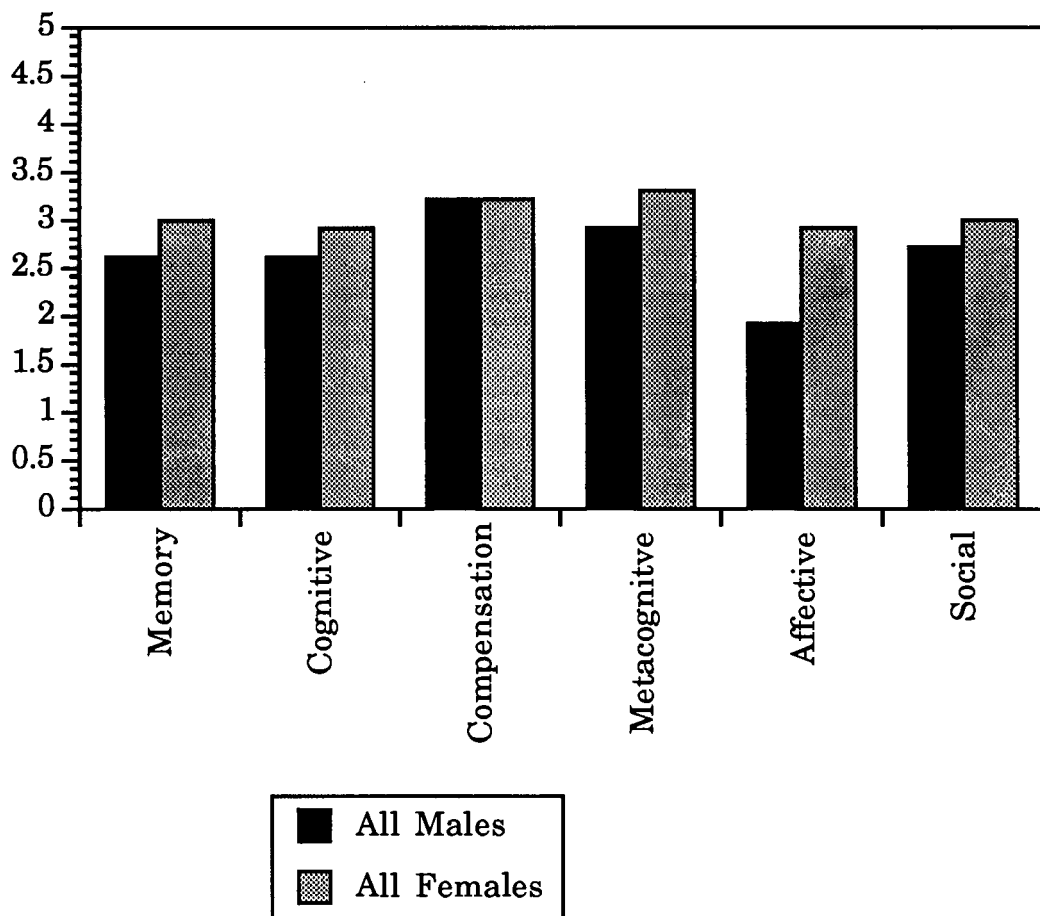
Figure 3. Average score for gender.

A *t* test, conducted on Year 11 males and females in the category of memory, showed there is significant difference based on six cases with a probability of 0.01. Of the fifteen items in this category, Year 11 females reported a wider use of five SILL items than Year 11 males. These items were creating associations, creating mental images and the technique of combining within the memory category. Moreover, results also indicated that memory strategies were favoured by female respondents where three out of
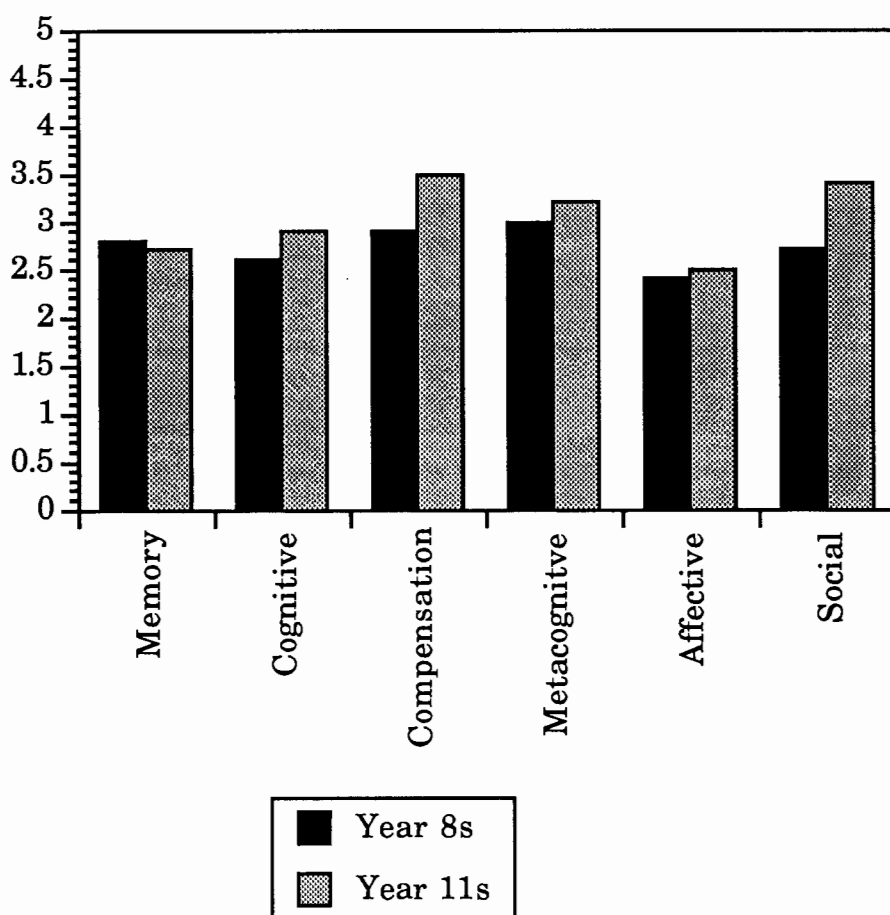
Figure 4. Average score for year level.

seven females in Year 8 and Year 11 had an average frequency response greater than three for this strategy group whereas only one Year 8 and no Year 11 males responded greater than three. From the above data it is concluded that there is a relationship between choice of strategy in memory and gender within Year 11.

In looking at cognitive strategies SILL findings show that both gender and year level reported frequent use of only five out of twenty five items in

this category that is, revising, or SILL item number 19 (19), using familiar words in different combinations (22), taking notes in class (32) and transferring (37,38). The frequency counts revealed that Year 8 females favoured the cognitive area the most with three out of seven students responding greater than three. No Year 8 males had an average frequency response greater than three and both genders in Year 11 did not favour cognitive strategies widely.

A t test conducted on Year 8 and Year 11 males showed significant difference based on six cases with a probability of 0.04. Year 11 males reported using cognitive strategies more widely than Year 8 males. Year 11 males showed preference for sixteen strategies in the cognitive area while Year 8 males only reported using eight strategies widely. The only cognitive strategy Year 8 males used more than Year 11 males was looking for similarities and contrasts between English and Japanese (36).

A t test conducted between year levels showed significant difference based on 12 cases with a probability of 0.04. Closer examination of SILL responses indicated that Year 11s reported a wider use of twelve cognitive strategies. Year 8s only reported using five strategies more widely than Year 11s.

Frequency counts conducted on responses to the eight SILL items in the category of compensation revealed that this strategy group was favoured by both genders and year levels. Half of the students for both gender and year level had an average frequency response greater than three with one Year 8

female greater than four. The lowest response came from Year 8 males. *T* tests conducted in this category showed no significant difference between gender or year level.

For metacognitive strategies, a *t* test proved significant difference between Year 8 males and females based on seven cases with a probability of 0.01. Year 8 males generally responded in the SILL as not widely using the sixteen listed metacognitive strategies. Only two males responded with an average frequency response greater than three whereas six out of seven females responded greater than three with one female student greater than four. Year 8 females favoured almost all the metacognitive strategies listed in the SILL.

Furthermore, a *t* test on Year 8 males and Year 11 males revealed significant difference based on six cases with a probability of 0.01. As reported earlier, only two out of seven Year 8 males responded with an average frequency response greater than three whereas five out of six Year 11 males responded greater than three for metacognitive strategies. It seems that Year 11 males arrange their schedules to study and practice (53), plan their goals for language learning (56), plan what will be accomplished in language learning (57), plan for a language learning task (58), seek practice opportunities (60), self-monitor (62,63) and self-evaluate (64) their language learning much more frequently than do Year 8 males.

In looking at the affective area, a *t* test showed significant difference between Year 8 males and females based on seven cases with a probability of 0.01. No year 8 males responded with an average greater than three whereas

four out of seven females responded with an average frequency response greater than three with one student greater than four. Year 8 females preferred four out of the seven items in this category. No Year 8 males reported giving tangible rewards greater than a response of two, that is, the statement is generally not true for them.

Both genders and year levels reported themselves as using the following strategies less frequently than others in this category: paying attention to signs of stress (69), keeping a private diary (70), and talking to someone about thoughts and feelings concerning language learning (71).

For the social area, a t test conducted between Year 8 males and females showed significant difference based on seven cases with a probability of 0.01. Five out of seven Year 8 females had an average frequency response greater than three with one student greater than four, whereas only one Year 8 male responded greater than three. Year 8 males did not favour more than half of the social strategies listed.

Significant difference in the social category was also established by t test between males in Year 8 and Year 11 based on six cases with a probability of 0.01. Year 11 males reported using most of the nine strategies in the social area whereas Year 8 males only favoured the one strategy of asking the speaker to slow down, clarify, or repeat when something is not understood (72).

In all of the nine listed social strategies both genders and years except Year 8 males responded as frequently using social strategies. The only

variations found were among the strategies asking questions while engaged in conversation (78) and asking others to correct pronunciation (74) where Year 11 females also reported them as not generally used or never used.

Subsidiary Research Question Three.

To answer the last subsidiary research question, that is, whether specific patterns exist among learners of Japanese as a second language in strategy choice, it was expected that given the nature of the Japanese language, and especially its three writing systems, students would have used the memory strategy of using flashcards more widely than reported.

Both genders in Year 8 reported in the interview studying the *hiragana* writing system and Year 11s report practising the *kanji* writing system yet neither gender or year level responded as widely using flashcards in the SILL but reported its frequent use outside of class. Moreover, only females favoured this technique in the diary and reported its use during class. In the interview Year 11 males stated that they mainly looked at their *kanji* and just wrote it out and practised drawing them while Year 8 males only reported their teachers use of flashcards during class. Considering the number of characters in both systems, 46 *hiragana* and approximately 100 *kanji* for the Year 11 syllabus, and the possible combinations within each system it is surprising that this memory strategy was not widely reported.

Furthermore, it is apparent from the interview that students do not have someone who understand the Japanese language to talk to and as a result

students tended to wait to speak to the teacher or just left what they were not able to complete. Students also reported that they often worked alone outside class and this may be due to the lack of someone who has a knowledge of the Japanese language to help them. Students only reported, in the interview and diary, their frequent use of saying or writing new expressions repeatedly when learning new work either by repeating words to themselves or by writing the work down a number of times until remembered. Moreover, in none of the instruments did students widely report using Japanese outside of the classroom. This could be the result of the lack of opportunity for secondary students either through the media or other areas to practise Japanese. In the interview only Year 8 females reported any use of practising Japanese among friends at school outside class time.

Finally, as noted earlier from findings in the interview students preferred to verify their understanding by asking the teacher or another student during class time but compensated for the lack of language partners at home and the lack of language resource material by using contextual clues. Again it is apparent that students look for strategies to compensate for the absence of others. Compensation strategies were the most favoured strategy overall amongst the students in this research.

Discussion

The literature (Politzer 1983, Zimmerman and Pons 1986, Ehrman and Oxford 1988, O'Malley et al. 1989, Oxford and Nyikos 1989, O'Malley and Chamot 1990) noted various findings that are supported by the results of the present research. Zimmerman and Pons (1986) noted that high

achievers relied heavily on social strategies in the classroom (p. 626) and Oxford and Nyikos (1989) agree that social strategies are favoured by more experienced learners (p. 293). This may be said for all students in the present research where social strategies are favoured during class but it does not apply as strongly outside the classroom. Furthermore, findings from the SILL indicate significant difference between males in Year 8 and 11 in their use of social strategies where Year 11s reported wider use of these strategies.

Politzer (1983), O'Malley et al. (1989) and O'Malley and Chamot (1990) agree that the level of expertise and experience in the language may affect choice of strategy on the part of the learner. Thus, from the present research, it may be said that choice of social strategy may depend on the level of expertise in Japanese for males. Furthermore, when looking at the overall SILL averages for between years from Figure 4 it is apparent that Year 11s do tend to use strategies more frequently than Year 8s with the exception of memory strategies.

Ehrman and Oxford (1988) also suggested that gender differences occur in social strategies where females use more strategies than males (p. 253). This is apparent in the present research especially within Year 8 where significant difference was found between males and females. However, overall SILL results, where the setting is not specific, did not show social strategies as favoured by either gender in Year 11. Nonetheless, it is apparent from interview and diary findings that females favour social strategies more than males outside the classroom.

From the literature specifically related to Japanese, Uzawa and Cumming (1989) noted that dictionaries were of little assistance to Japanese learners because definitions were not clear (p. 180). Such cognitive strategies and the use of reference materials have been reported by respondents in this research project through the interview and diary as used only during class with SILL findings revealing that all except Year 8 males used this technique widely.

It was further suggested by this researcher in the literature review that learners of Japanese as a second language may have difficulty with the cognitive strategy of recombining and constructing meaningful sentences using existing knowledge since "lack of vocabulary ... made writing most difficult" (Uzawa and Cumming 1989, p. 180). However, the SILL results showed these two cognitive strategies as widely used by Year 11s and Year 8 females. Considering cognitive strategies were the least favoured direct strategy in the SILL this is unexpected.

Moreover, this researcher also suggested that there would be difficulties with metacognitive strategies such as previewing since this strategy also required learners to link with previously known material. SILL results indicated that previewing the language lesson is only popular with Year 8 females. This is also indicated in the interview where only females showed preference for this strategy.

Further findings of Uzawa and Cumming (1989) suggested that memory strategies would be frequently used by learners of Japanese since these strategies help in the retention of vocabulary. Overall SILL findings indicate

that memory strategies are only sometimes used by all learners except Year 11 males who generally do not use these strategies at all. The most widely reported memory strategy in all three instruments was saying and writing new work repeatedly.

Furthermore, it was suggested earlier in this research project that the cognitive strategies of translating and transferring might be used often following Ugawa and Cumming's suggestion of the high use of the mother tongue when writing Japanese. The SILL findings of this research show that students do use the strategies of translating and transferring but students are not cautious about translating 'word-for-word' except in Year 11. It was reported by most students in the interview that in class they usually translate into English whatever task is at hand. However, all students in the SILL reported using caution when transferring phrases or concepts directly from one language to another.

Finally, Horiba (1990) noted the frequent use by second language learners of the strategy of using contextual clues. As mentioned earlier in this chapter this compensation strategy was reported as widely used only outside class whereas in the classroom students preferred to ask someone or use reference materials available.

Conclusion

This research project used the three instruments survey, interview and diary to elicit the range of strategies employed by learners of Japanese as a second language in secondary education. The survey provided overall

information on strategy choice while the diary and interview specified strategy choice within classroom and non-classroom settings.

This research has demonstrated through the SILL that strategies in the affective area are those used least by students while compensation, metacognitive and social strategies are the most widely employed. Of all the possible strategies listed no one strategy is always or almost always used in the learning situation.

The interview and diary demonstrated that students employ different strategies in class and outside the classroom with social strategies the most significant in that females do employ these more widely than males. Such findings suggest the need for further research outside the classroom among learners of Japanese as a second language in secondary education. Furthermore, it would be interesting to discover if there are any specific patterns amongst learners of Japanese that make them different from other second language learners. This research uncovered some data on this question among learners of Japanese as a second language but further work is required.

Research of this kind and further research expands current thought in language learning strategy research and provides valuable information to the wider educational field in the area of Japanese teaching and learning. In summation, it is hoped that with the information provided in this research on the strategies employed by learners of Japanese as a second language in secondary school that teachers will be helped to develop an awareness of the

range of strategies employed and under utilised by learners and provide foundation for assisting unsuccessful students in the use of learning strategies in second language acquisition.

Appendices

Glossary of Strategy Names as devised by Oxford et al. (1989a), "Research on Language Learning Strategies: Methods, Findings, and Instructional Issues", The Modern Language Journal, 73, 4, p. 404.

* *Cognitive strategies*	-	skills that involve manipulation or transformation of the language in some direct way, e.g., through reasoning, analysis, note taking, functional practice in naturalistic settings, formal practice with structures and sounds, etc.
* *Memory Strategies*	-	techniques specifically tailored to help the learner store new information in memory and retrieve it later.
* *Compensation Strategies*	-	behaviours used to compensate for missing knowledge of some kind, e.g., inferencing (guessing) while listening or reading, or using synonyms or circumlocution while speaking or writing.
* *Communication Strategies*	-	typically taken to mean only those compensation strategies used while speaking; however, communication occurs in the three other language skill areas (reading, listening, and writing) as well as in speaking, so the popular term *communication strategies* is a misnomer.
* *Metacognitive Strategies*	-	behaviours used for centering, arranging, planning, and evaluating one's learning. These "beyond-the-cognitive" strategies are used to provide "executive control" over the learning process.
* *Affective Strategies*	-	techniques like self-reinforcement and positive self-talk which help learners gain better control over their emotions, attitudes, and motivations related to language learning.
* *Social Strategies*	-	actions involving other people in the language learning process. Examples are questioning, cooperating with peers, and developing empathy.

Learning Strategies and their Definitions in O'Malley et al. (1990), <u>Learning Strategies in Second Language Acquisition</u>, p. 137-139.

Cognitive strategies involve interacting with the material to be learned, manipulating the material mentally or physically, or applying a specific technique to a learning task.

1. *Repetition*: Repeating a chunk of language (a word or phrase) in the course of performing a language task.
2. *Resourcing*: Using available reference sources of information about the target language, including dictionaries, textbooks, and prior work.
3. *Grouping*: Ordering, classifying, or labeling material used in a language task based on common attributes; recalling information based on grouping previously done.
4. *Note taking*: Writing down key words and concepts in abbreviated verbal, graphic, or numerical form to assist performance of a language task.
5. *Deduction/Induction*: Consciously applying learned or self-developed rules to produce or understand the target language.
6. *Substitution*: Selecting alternative approaches, revised plans, or different words or phrases to accomplish a language task.
7. *Elaboration*: Relating new information to prior knowledge; relating different parts of new information to each other; making meaningful personal associations to information presented. This has been coded in the think-aloud data in the following ways:
   a. *Personal* elaboration: Making judgments about or reacting personally to the material presented.
   b. *World* elaboration: Using knowledge gained from experience in the world.
   c. *Academic* elaboration: Using knowledge gained in academic situations.
   d. *Between parts* elaboration: Relating parts of the task to each other.
   e. *Questioning* elaboration: Using a combination of questions and world knowledge to brainstorm logical solutions to a task.
   f. *Self-evaluative* elaboration: Judging self in relation to materials.
   g. *Creative* elaboration: Making up a story line, or adopting a clever perspective.
   h. *Imagery*: Using mental or actual pictures or visuals to represent information; coded as a separate category, but viewed as a form of elaboration.
8. *Summarization*: Making a mental or written summary of language and information presented in a task.
9. *Translation*: Rendering ideas from one language to another in a relatively verbatim manner.
10. *Transfer*: Using previously acquired linguistic knowledge to facilitate a language task.
11. *Inferencing*: Using available information to guess the meanings or usage of unfamiliar language items associated with a language task, to predict outcomes, or to fill in missing information.

Social and affective strategies involve interacting with another person to assist learning or using affective control to assist a learning task.

1. *Questioning for clarification*: Asking for explanation, verification, rephrasing, or examples about the material; asking for clarification or verification about the task; posing questions to the self.
2. *Cooperation*: Working together with peers to solve a problem, pool information, check a learning task, model a language activity, or get feedback on oral or written performance.
3. *Self-talk*: Reducing anxiety by using mental techniques that make one feel competent to do the learning task.
4. *Self-reinforcement*: Providing personal motivation by arranging rewards for oneself when a language learning activity has been successfully completed.

Metacognitive strategies involve thinking about the learning process, planning for learning, monitoring the learning task, and evaluating how well one has learned.

1. *Planning*: Previewing the organizing concept or principle of an anticipated learning task (*advance organization*); proposing strategies for handling an upcoming task; generating a plan for the parts, sequence, main ideas, or language functions to be used in handling a task (*organizational planning*).
2. *Directed attention*: Deciding in advance to attend in general to a learning task and to ignore irrelevant distractors; maintaining attention during task execution.
3. *Selective attention*: Deciding in advance to attend to specific aspects of language input or situational details that assist in performance of a task; attending to specific aspects of language input during task execution.
4. *Self-management*: Understanding the conditions that help one successfully accomplish language tasks and arranging for the presence of those conditions; controlling one's language performance to maximize use of what is already known.
5. *Self-monitoring*: Checking, verifying, or correcting one's comprehension or performance in the course of a language task. This has been coded in the think-alouds in the following ways:
   a. *Comprehension* monitoring: checking, verifying, or correcting one's understanding.
   b. *Production* monitoring: checking, verifying, or correcting one's language production.
   c. *Auditory* monitoring: using one's "ear" for the language (how something sounds) to make decisions.
   d. *Visual* monitoring: using one's "eye" for the language (how something looks) to make decisions.
   e. *Style* monitoring: checking, verifying, or correcting based upon an internal stylistic register.
   f. *Strategy* monitoring: tracking use of how well a strategy is working.
   g. *Plan* monitoring: tracking how well a plan is working.
   h. *Double-check* monitoring: tracking, across the task, previously undertaken acts or possibilities considered.
6. *Problem identification*: Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.
7. *Self-evaluation*: Checking the outcomes of one's own language performance against an internal measure of completeness and accuracy; checking one's language repertoire, strategy use, or ability to perform the task at hand. This has been coded in the think-alouds as:
   a. *Production* evaluation: checking one's work when the task is finished.
   b. *Performance* evaluation: judging one's overall execution of the task.
   c. *Ability* evaluation: judging one's ability to perform the task.
   d. *Strategy* evaluation: judging one's strategy use when the task is completed.
   e. *Language repertoire* evaluation: judging how much one knows of the L2, at the word, phrase, sentence, or concept level.

Appendix **B**

Strategy Inventory for Language Learning (SILL)

Version for English Speakers Learning a New Language

Strategy Inventory for Language Learning (SILL)

Version 5.1
(c) R. Oxford, 1989

Directions

The STRATEGY INVENTORY FOR LANGUAGE LEARNING (SILL) is designed to gather information about how you, as a student of a foreign or second language, go about learning that language. On the following pages, you will find statements related to learning a new language. Please read each statement. On the separate answer sheet, mark the response (1, 2, 3, 4, or 5) that tells how true the statement is in terms of <u>what you actually do when you are learning the new language.</u>

1. Never or almost never true of me
2. Generally not true of me
3. Somewhat true of me
4. Generally true of me
5. Always or almost always true of me

<u>Never or almost never true of me</u> means that the statement is very rarely true of you ; that is, you do the behavior which is described in the statement only in very rare instances.
<u>Generally not true of me</u> means that the statement is usually not true of you; that is, you do the behavior which is described in the statement less than half the time, but more than in very rare instances.
<u>Somewhat true of me</u> means that the statement is true of you about half the time; that is, sometimes you do the behavior which is described in the statement, and sometimes you don't, and these instances tend to occur with about equal frequency.
<u>Generally true of me</u> means that the statement is usually true of you; that is, you do the behavior which is described in the statement more than half the time.
<u>Almost or never true of me</u> means that the statement is true of you in almost all circumstances; that is, you almost always do the behavior which is described in the statement.

Use the separate Worksheet for recording your answers and for scoring. Answer in terms of how well the statement describes you, not in terms of what you think you should do, or what other people do. Answer in reference to the language you are now learning (or the language you most recently learned). There are no right or wrong responses to these statements. Work carefully but quickly. You will score the SILL yourself using the attached Worksheet. On the Worksheet, write your name, the date, and the language learned.

(Version 5.1 / R. L. Oxford, 1989)

When learning new material . . .

13.   I review often.

14.   I schedule my reviewing so that the review sessions are initially close together in time and gradually become more widely spread apart.

15.   I go back to refresh my memory of things I learned much earlier.

1.	Never or almost never true of me
2.	Generally not true of me
3.	Somewhat true of me
4.	Generally true of me
5.	Always or almost always true of me

(Write answers on Worksheet)

Part B

16.   I say or write new expressions repeatedly to practice them.

17.   I imitate the way native speakers talk.

18.   I read a story or dialogue several times until I can understand it.

19.   I revise what I write in the new language to improve my writing.

20.   I practice the sounds or alphabet of the new language.

21.   I use idioms or other routines in the new language.

22.   I use familiar words in different combinations to make new sentences.

23.   I initiate conversations in the new language.

24.   I watch TV shows or movies or listen to the radio in the new language.

25.   I try to think in the new language.

26.   I attend and participate in out-of-class events where the new language is spoken.

27.   I read for pleasure in the new language.

28.   I write personal notes, messages, letters, or reports in the new language.

29.   I skim the reading passage first to get the main idea, then I go back and read it more carefully.

30.   I seek specific details in what I hear or read.

31.   I use reference materials such as glossaries or dictionaries to help me use the new language.

32.   I take notes in class in the new language.

33.   I make summaries of new language material.

34.   I apply general rules to new situations when using the language.

35.   I find the meaning of a word by dividing the word into parts which I understand.

36.   I look for similarities and contrasts between the new language and my own.

37.   I try to understand what I have heard or read without translating it word-for-word into my own language.

38.   I am cautious about transferring words or concepts directly from my language to the new language.

39   I look for patterns in the new language.

EXAMPLE

1. Never or almost never true of me
2. Generally not true of me
3. Somewhat true of me
4. Generally true of me
5. Always or almost always true of me

Read the item, and choose a response (1 through 5 as above), and write it in the space after the item.

I actively seek out opportunities to talk with native speakers of the new language. _____

You have just completed the example item. Answer the rest of the items on the Worksheet.

Strategy Inventory for Language Learning

Version 5.1

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1. Never or almost never true of me

2. Generally not true of me

3. Somewhat true of me

4. Generally true of me

5. Always or almost always true of me

(Write answers on Worksheet)

Part A

When learning a new word . . .

1. I create associations between new material and what I already know.

2. I put the new word in a sentence so I can remember it.

3. I place the new word in a group with other words that are similar in some way (for example, words related to clothing, or feminine nouns).

4. I associate the sound of the new word with the sound of a familiar word.

5. I use rhyming to remember it.

6. I remember the word by making a clear mental image of it or by drawing a picture.

7. I visualize the spelling of the new word in my mind.

8. I use a combination of sounds and images to remember the new word.

9. I list all the other words I know that are related to the new word and draw lines to show relationships.

10. I remember where the new word is located on the page, or where I first saw or heard it.

11. I use flashcards with the new word on one side and the definition or other information on the other.

12. I physically act out the new word.

1.   Never or almost never true of me

2.   Generally not true of me

3.   Somewhat true of me

4.   Generally true of me

5.   Always or almost always true of me

        (Write answers on Worksheet)

40.   I develop my own understanding of how the language works, even if sometimes I have
        to revise my understanding based on new information.

Part C

41.   When I do not understand all the words I read or hear, I guess the general meaning by
        using any clue I can find, for example, clues from the context or situation.

42.   I read without looking up every unfamiliar word.

43.   In a conversation I anticipate what the other person is going to say based on what has
        been said so far.

44.   If I am speaking and cannot think of the right expression, I use gestures or switch back
        to my own language momentarily.

45.   I ask the other person to tell me the right word if I cannot think of it in a conversation.

46.   When I cannot think of the correct expression to say or write, I find a different way to
        express the idea; for example, I use a synonym or describe the idea.

47.   I make up new words if I do not know the right ones.

48.   I direct the conversation to a topic for which I know the words.

Part D

49.   I preview the language lesson to get a general idea of what it is about, how it is organized,
        and how it relates to what I already know.

50.   When someone is speaking the new language, I try to concentrate on what the person
        is saying and put unrelated topics out of my mind.

51.   I decide in advance to pay special attention to specific language aspects; for example, I
        focus the way native speakers pronounce certain sounds.

52.   I try to find out all I can about how to be a better language learner by reading books or
        articles, or by talking with others about how to learn.

53.   I arrange my schedule to study and practice the new language consistently, not just when
        there is the pressure of a test.

54.   I arrange my physical environment to promote learning; for instance, I find a quiet,
        comfortable place to review.

55.   I organize my language notebook to record important language information.

56.   I plan my goals for language learning, for instance, how proficient I want to become or
        how I might want to use the language in the long run.

1.   Never or almost never true of me

2.   Generally not true of me

3.   Somewhat true of me

4.   Generally true of me

5.   Always or almost always true of me

        (Write answers on Worksheet)

57.   I plan what I am going to accomplish in language learning each day or each week.

58.   I prepare for an upcoming language task (such as giving a talk in the new language) by
        by considering the nature of the task, what I have to know, and my current language skills.

59.   I clearly identify the purpose of the language activity; for instance, in a listening task I
        might need to listen for the general idea or for specific facts.

60.   I take responsibility for finding opportunities to practice the new language.

61.   I actively look for people with whom I can speak the new language.

62.   I try to notice my language errors and find out the reasons for them.

63.   I learn from my mistakes in using the new language.

64.   I evaluate the general progress I have made in learning the language.

Part E

65.   I try to relax whenever I feel anxious about using the new language.

66.   I make encouraging statements to myself so that I will continue to try hard and do my
        best in language learning.

67.   I actively encourage myself to take wise risks in language learning, such as guessing
        meanings or trying to speak, even though I might make some mistakes.

68.   I give myself a tangible reward when I have done something well in my language learning.

69.   I pay attention to physical signs of stress that might affect my language learning.

70.   I keep a private diary or journal where I write my feelings about language learning.

71.   I talk to someone I trust about my attitudes and feelings concerning the language learning process.

Part F

72.   If I do not understand, I ask the speaker to slow down, repeat, or clarify what was said.

73.   I ask other people to verify that I have understood or said something correctly.

74.   I ask other people to correct my pronunciation.

75.   I work with other language learners to practice, review, or share information.

76.   I have a regular language learning partner.

1.   Never or almost never true of me

2.   Generally not true of me

3.   Somewhat true of me

4.   Generally true of me

5.   Always or almost always true of me

(Write answers on Worksheet)

77.   When I am talking with a native speaker, I try to let him or her know when I need help.

78.   In conversation with others in the new language, I ask questions in order to be as involved as possible and to show I am interested.

79.   I try to learn about the culture of the place where the new language is spoken.

80.   I pay close attention to the thoughts and feelings of other people with whom I interact in the new language.

Your Name _____   Date _____

Language Learned Now or Most Recently _____

Worksheet for Answering and Scoring

the Strategy Inventory for Language Learning (SILL)

Version 5.1 (c) R. Oxford, 1989

1.   Write your response to each item (that is, write 1, 2, 3, 4, or 5) in each of the blanks, which are numbered to correspond to each item on the SILL.

2.   Total each column and put the result on the line marked "SUM".

3.   Divide by the number under "SUM" to provide an average for each column. Round this average off to the nearest tenth, as in 3.4. Because the only possible response for a SILL item is 1, 2, 3, 4, or 5, your average across items for each part of the SILL should be between 1.0 and 5.0. You can make sure your figuring is correct by checking whether your average for each part is within the range of 1.0 to 5.0.

4.   Calculate your overall average. To do this, add up all the SUMS for the different parts of the SILL. This will give you the total raw score. Divide by 80, the number of items on the SILL. This will give you the overall average, which should be within the range of 1.0 and 5.0.

5.   When you have completed this Worksheet, your teacher will give you the Profile of results on the Strategy Inventory for Language Learning (SILL). Transfer your averages (for each part and for the whole SILL) from the Worksheet to the Profile in order to obtain an interpretation of your SILL results.

SILL Worksheet (continued)

Version 5.1
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Part A	Part B	Part C	Part D	Part E	Part F	Whole SILL
1. ___	16. ___	41. ___	49. ___	65. ___	72. ___	SUM Part A ___
2. ___	17. ___	42. ___	50. ___	66. ___	73. ___	SUM Part B ___
3. ___	18. ___	43. ___	51. ___	67. ___	74. ___	SUM Part C ___
4. ___	19. ___	44. ___	52. ___	68. ___	75. ___	SUM Part D ___
5. ___	20. ___	45. ___	53. ___	69. ___	76. ___	SUM Part E ___
6. ___	21. ___	46. ___	54. ___	70. ___	77. ___	SUM Part F ___
7. ___	22. ___	47. ___	55. ___	71. ___	78. ___	
8. ___	23. ___	48. ___	56. ___		79. ___	
9. ___	24. ___		57. ___		80. ___	
10. ___	25. ___		58. ___			
11. ___	26. ___		59. ___			
12. ___	27. ___		60. ___			
13. ___	28. ___		61. ___			
14. ___	29. ___		62. ___			
15. ___	30. ___		63. ___			
	31. ___		64. ___			
	32. ___					
	33. ___					
	34. ___					
	35. ___					
	36. ___					
	37. ___					
	38. ___					
	39. ___					
	40. ___					

SUM ___	SUM ___	SUM ___	SUM ___	SUM ___	SUM ___.	SUM ___
$\div 15 =$ ___	$\div 25 =$ ___	$\div 8 =$ ___	$\div 16 =$ ___	$\div 7 =$ ___	$\div 9 =$ ___	$\div 80 =$ ___ (OVERALL AVERAGE)

Your Name _____   Date _____

Language Learned Now or Most Recently _____

Profile of Results on the Strategy Inventory for Language Learning (SILL)

Version 5.1

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You will be given this Profile after you have completed the Worksheet for Answering and Scoring the Strategy Inventory for Language Learning (SILL). This Profile will summarize your results on SILL and show the kinds of strategies you use in learning a new language. Please note that there are no right or wrong answers and no "best" average scores for each part, since people learn languages differently.

To complete this Profile, transfer your averages for each part of the SILL, and for the whole SILL, from the Worksheet.

Part	What Strategies Are Covered	Your Average on This Part
A.	Remembering More Effectively: Grouping: making associations; placing new words into a context to remember them; using imagery, sounds, sound-and-image combinations, actions, etc. in order to remember new expressions; reviewing in a structured way; going back to review earlier material.	_____
B.	Using Your Mental Processes: Repeating; practicing with sounds and writing systems; using formulas and patterns; recombining familiar items in new ways; practicing the new language in a variety of authentic situations involving the four skills (listening, reading, speaking, and writing); skimming and scanning to get the idea quickly; using reference resources; taking notes; summarizing; reasoning deductively (applying general rules); analyzing expressions; analyzing contrastively via comparisons with another language; being cautious about word-for-word translating and direct transfers from another language; looking for language patterns; adjusting your understanding according to new information.	_____
C.	Compensating for Missing Knowledge: Using all possible clues to guess the meaning of what is heard or read in the new language; trying to understand the overall meaning and not necessarily every single word; finding ways to get the message across in speaking or writing despite limited knowledge of the new language; for instance, using gestures, switching to your own language momentarily, using a synonym or description, coining new words.	_____
D.	Organizing and Evaluating Your Learning: Overviewing and linking with material you already know; deciding in general to pay attention; deciding to pay attention to specific details; finding out how language learning works; arranging to learn (schedule, environment, notebook); setting goals and objectives; identifying the purpose of a language task; planning for a language task; finding practice opportunities; noticing and learning from your errors; evaluating your progress.	_____
E.	Managing Your Emotions: Lowering your anxiety; encouraging yourself through positive statements; taking risks wisely; rewarding yourself; noting physical stress; keeping a language learning diary; talking with someone about your feelings/attitudes.	_____
F.	Learning with Others: Asking questions for clarification or verification; asking for correction; cooperating with peers; cooperating with proficient users of the new language; developing cultural awareness; becoming aware of others' thoughts and feelings.	_____

YOUR OVERALL AVERAGE   _____

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Key to Understanding Your Averages

High	Always or almost always used	4.5 to 5.0
	Generally used	3.5 to 4.4
Medium	Sometimes used	2.5 to 3.4
Low	Generally not used	1.5 to 2.4
	Never or almost never used	1.0 to 1.4

Graph Your Averages Here

If you want, you can make a graph of your SILL averages. What does this graph tell you? Are you very high or very low on any part?

| | A Remembering more effectively | B Using your mental processes | C Compensating for missing knowledge | D Organizing and evaluating your learning | E Managing your emotions | F Learning with others | Your Overall Average |
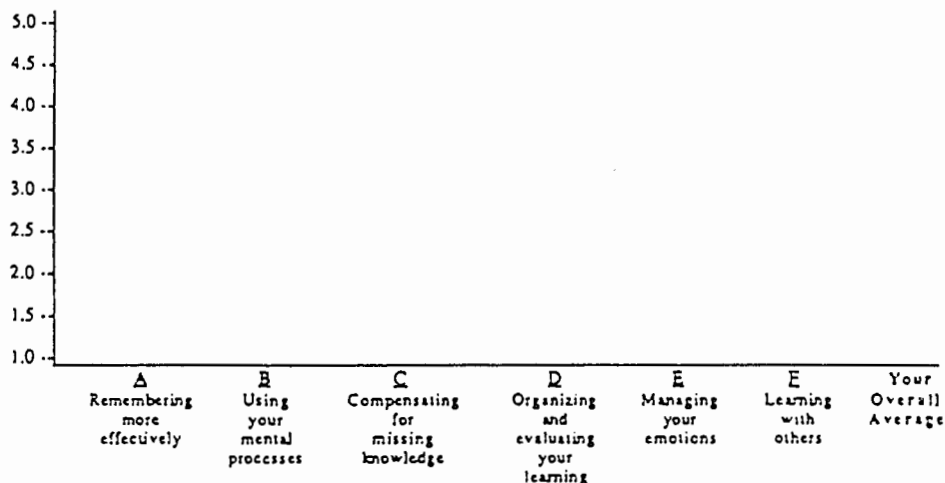
What These Averages Mean to You

The overall average indicates how frequently you use language learning strategies in general. The averages for each part of the SILL show which groups of strategies you tend to use the most in learning a new language. You might find that the averages for each part of the SILL are more useful than your overall average.

Optimal use of language learning strategies depends on your age, personality, stage of language learning, purpose for learning the language, previous experience, and other factors. Nevertheless, there may be some language learning strategies that you are not yet using which might be beneficial to you. Ask your teacher for more information on language learning strategies.

Interview

I am going to ask you questions about what you do at school in your Japanese classroom and at home or outside the classroom. Answer them as truthfully as possible.

Firstly let's look at your classroom work.

Classroom   Check √

What do you do in the classroom to help you learn Japanese?

Memory

1. Imagine your teacher has given you a new word to learn ...
    What do you do in class to remember the word?

Cognitive

1. In class when learning this new word in Japanese what use do
    you make of

        (a) English?
        (b) Roomaji?

2. Do you use the dictionary or vocab list often in class? When?

3. When you listen or read Japanese in class do you translate into
    English to help you understand?

Compensation

1. In class when reading or listening to Japanese and you come
    across something you are unsure of what do you do?

1. When your teacher is talking about Japanese grammar
   what do you do to help you learn and remember it?
2. Do you always sit in the same spot in class?
   Why?

Affective

1. In class when you have difficulty how do you feel?

2. What do you do to overcome this?

Social

1. In class do you ask your friends to help you with something
   difficult?
   Why?

2. At Home/Non-classroom
What do you do at home or out of the classroom to help you learn
your Japanese?

Memory

1. Do you use pictures at home or out of class to help you learn
   your vocab or characters?
   When? Why?
   What sort of flashcards are they?/ For what purpose?/
   Describe them.
   (What sort of material do you use?)

2. Do you make lists of any kind to help you learn your
   Japanese?

3. Do you place new words in lists with similar types of words?

1. Do you watch any Japanese programs on TV or at the movies or
   elsewhere?

2. Do you use your Japanese outside of the classroom in any way
   other than for things related to school?
   Where? For what purpose?

3. At home do you summarize what you did in class that day for
   revision?
   How? (For tests?)

<u>Compensation</u>

1. While you are studying or doing your Japanese homework and
   you don't understand something do you work it out from context
   or do you do something else?

<u>Metacognitive</u>

1. Where do you find it best to study Japanese when you are not
   in the classroom?

2. Before you have a Japanese lesson at school what preparation
   do you make?

3. Do you have a study timetable to help you study your Japanese
   consistently?

<u>Affective</u>

1. After you have completed some Japanese work outside the
   classroom how do you feel?

2. When you have problems with your Japanese study do you have someone special to talk to?

3. What do you do to overcome any anxiety with your Japanese study?

Social

1. Do you work with friends outside the classroom to help you learn and study Japanese?

    How often is this?

Appendix 5

Guidelines in Diary

Use the following guideline:

1. Write down your feelings about what you are learning.
2. Write down what you did.
3. How many times did you do it?
4. For how long?
5. For what purpose eg. - test, homework etc.
6. How do you feel now the task is completed?
7. Write down the date and time.

Memory

1. 3 out of 7 Year 8 Females had an average frequency response greater than 3.
2. 1 out of 6 Year 8 Males had an average frequency response greater than 3.
3. 3 out of 6 Year 11 Females had an average frequency response greater than 3.
4. 0 out of 6 Year 11 Males had an average frequency response greater than 3.
5. A t test of significance showed no significant difference between Year 8 Males and Females based on 7 cases (t=-1.03, df=6, p=0.34).
6. A t test of significance showed significant difference between Year 11 males and females based on 6 cases (t=-4.10, df=5, p<0.05).
7. A t test of significance showed no significant difference between Year 8 females and Year 11 females based on 6 cases (t=-0.06, df=5, p=0.95).
8. A t test of significance showed no significant difference between Year 8 males and Year 11 Males based on 6 cases (t=0.70, df=5, p=0.52).
9. A t test of significance showed no significant difference between Year 8 Females/Males and Year 11 Females/males based on 12 cases (t=0.08, df=11, p=0.94).

SILL

When learning a new word...

1. I create associations between new material and what I already know.

1 = Year 8f 1	Year 8m 0	Year 11f 0	Year 11m 0
2 = Year 8f 0	Year 8m 1	Year 11f 0	Year 11m 3
3 = Year 8f 3	Year 8m 1	Year 11f 3	Year 11m 0
4 = Year 8f 2	Year 8m 5	Year 11f 3	Year 11m 3
5 = Year 8f 1	Year 8m 0	Year 11f 0	Year 11m 0

2. I put the new word in a sentence so I can remember it.

1 = Year 8f 0	Year 8m 3	Year 11f 2	Year 11m 2
2 = Year 8f 1	Year 8m 1	Year 11f 1	Year 11m 3
3 = Year 8f 2	Year 8m 2	Year 11f 2	Year 11m 1
4 = Year 8f 4	Year 8m 1	Year 11f 1	Year 11m 0
5 = 0			

3. I place the new word in a group with other words that are similar in some way (for example, words related to clothing, or feminine nouns).

1 = Year 8f 0	Year 8m 1	Year 11f 0	Year 11m 3
2 = Year 8f 3	Year 8m 4	Year 11f 2	Year 11m 0
3 = Year8f 1	Year 8m 2	Year 11f 1	Year 11m 3
4 = Year 8f 2	Year 8m 0	Year 11f 2	Year 11m 0
5 = Year 8f 1	Year 8m 0	Year 11f 1	Year 11m 0

4. I associate the sound of the new word with the sound of a familiar word.

1 = Year 8f 1	Year 8m 2	Year 11f 0	Year 11m 0
2 = Year 8f 0	Year 8m 1	Year 11f 0	Year 11m 3
3 = Year 8f 3	Year 8m 2	Year 11f 2	Year 11m 2
4 = Year 8f 0	Year 8m 2	Year 11f 2	Year 11m 1
5 = Year 8f 3	Year 8m 0	Year 11f 2	Year 11m 0

5. I use rhyming to remember it.

1 = Year8f 1	Year 8m 5	Year 11f 2	Year 11m 2
2 = Year8f 3	Year 8m 0	Year 11f 1	Year 11m 2
3 = Year 8f 1	Year 8m 2	Year 11f 2	Year 11m 2
4 = Year 8f 0	Year 8m 0	Year 11f 1	Year 11m 0
5 = Year 8f 2	Year 8m 0	Year 11f 0	Year 11m 0

6. I remember the word by making clear mental images of it or by drawing a picture.

1 = Year8f 1	Year8m 0	Year11f 0	Year 11m 3
2 = Year 8f 4	Year 8m 3	Year11f 1	Year 11m 1
3 = Year8f 1	Year 8m 1	Year 11f 1	Year 11m 1
4 = Year 8f 1	Year 8m 1	Year 11f 2	Year 11m 1
5 = Year 8f 0	Year 8m 2	Year 11f 2	Year 11m 0

7. I visualize the spelling of the new word in my mind.

1 = Year 8f 0	Year8m 0	Year11f 0	Year11m 1
2 = Year 8f 2	Year8m 2	Year11f 0	Year11m 0
3 = Year 8f 2	Year8m 2	Year11f 1	Year11m 4
4 = Year 8f 3	Year8m 1	Year11f 4	Year11m 1
5 = Year 8f 0	Year8m 2	Year11f 1	Year11m 0

8. I use a combination of sounds and images to remember the new word.

1 = Year8f 0	Year8m 2	Year11f 0	Year11m 0
2 = Year8f 1	Year8m 0	Year11f 0	Year11m 2
3 = Year8f 3	Year8m 1	Year11f 3	Year11m 3
4 = Year8f 2	Year8m 2	Year11f 2	Year11m 1
5 = Year8f 1	Year8m 2	Year11f 1	Year11m 0

9. I list all the other words I know that are related to the new word and draw lines to show relationships.

1 = Year8f 4	Year8m 4	Year11f 3	Year11m 5
2 = Year8f 2	Year8m 3	Year11f 2	Year11m 1
3 = Year8f 1	Year8m 0	Year11f 1	Year11m 0
4 = 0			
5 = 0			

10. I remember where the new word is located on the page, or where I first saw or heard it.

1 = Year8f 1	Year8m 1	Year11f 1	Year11m 1
2 = Year8f 3	Year8m 0	Year11f 1	Year11m 1
3 = Year8f 2	Year8m 3	Year11f 0	Year11m 2
4 = Year8f 1	Year8m 2	Year11f 2	Year11m 2
5 = Year8f 0	Year8m 1	Year11f 2	Year11m 0

11. I use flashcards with the new word on one side and the definition or other information on the other.

1 = Year8f 2	Year8m 2	Year11f 2	Year11m 0
2 = Year8f 2	Year8m 2	Year11f 0	Year11m 2
3 = Year8f 0	Year8m 2	Year11f 1	Year11m 2
4 = Year8f 2	Year8m 0	Year11f 2	Year11m 1
5 = Year8f 1	Year8m 1	Year11f 1	Year11m 1

12. I physically act out the new word.

1 = Year8f 5	Year8m 5	Year11f 4	Year11m 6
2 = Year8f 1	Year8m 1	Year11f 2	Year11m 0
3 = Year8f 1	Year8m 1	Year11f 0	Year11m 0
4 = 0			
5 = 0			

13. I review often.

```
1 = 0
2 = Year8f 0      Year8m 1      Year11f 1      Year11m 0
3 = Year8f 1      Year8m 5      Year11f 3      Year11m 2
4 = Year8f 3      Year8m 0      Year11f 1      Year11m 4
5 = Year8f 3      Year8m 1      Year11f 1      Year11m 0
```

14. I schedule my reviewing so that the review sessions are initially close
together in time and gradually become more widely spread apart.

```
1 = Year8f 2      Year8m 2      Year11f 2      Year11m 1
2 = Year8f 1      Year8m 3      Year11f 2      Year11m 2
3 = Year8f 2      Year8m 0      Year11f 1      Year11m 3
4 = Year8f 2      Year8m 2      Year11f 1      Year11m 0
5 = 0
```

15. I go back to refresh my memory of things I learned much earlier.

```
1 = Year8f 0      Year8m 1      Year11f 0      Year11m 0
2 = Year8f 0      Year8m 0      Year11f 1      Year11m 0
3 = Year8f 0      Year8m 1      Year11f 3      Year11m 4
4 = Year8f 3      Year8m 2      Year11f 2      Year11m 2
5 = Year8f 4      Year8m 3      Year11f 0      Year11m 0
```

Cognitive

1. 3 out of 7 Year 8 Females had an average frequency response greater than 3.
2. 0 out of 7 Year 8 Males had an average frequency response greater than 3.
3. 1 out of 6 Year 11 Females had an average frequency response greater than 3.
4. 2 out of 6 Year 11 Males had an average frequency response greater than 3.
5. A t test of significance showed no significant difference between Year 8 Males and Females based on 7 cases (t=-1.94, df=6, p=0.10).
6. A t test of significance showed no significant difference between Year 11 Males and females based on 6 cases (t=-0.32, df=5, p=0.76).
7. A t test of significance showed significant difference between Year 8 Males and Year 11 Males based on 6 cases (t=-2.82, df=5, p<0.05).
8. A t test of significance showed no significant difference between Year 8 Females and Year 11 Females based on 6 cases (t=-0.55, df=5, p=0.61).

9. A *t* test of significance showed significant difference between Year 8 Males/Females and Year 11 Males/Females based on 12 cases ($t=-2.33$, $df=11$, $p<0.04$).

<u>SILL</u>

16. I say or write new expressions repeatedly to practice them.

1 = 0			
2 = Year8f 1	Year8m 3	Year11f 2	Year11m 0
3 = Year8f 3	Year8m 3	Year11f 3	Year11m 3
4 = Year8f 3	Year8m 1	Year11f 0	Year11m 3
5 = Year8f 0	Year8m 0	Year11f 1	Year11m 0

17. I imitate the way native speakers talk.

1 = Year8f 0	Year8m 3	Year11f 2	Year11m 2
2 = Year8f 2	Year8m 2	Year11f 2	Year11m 1
3 = Year8f 4	Year8m 1	Year11f 0	Year11m 2
4 = Year8f 0	Year8m 1	Year11f 2	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

18. I read a story or dialogue several times until I can understand it.

1 = Year8f 0	Year8m 3	Year11f 0	Year11m 0
2 = Year8f 1	Year8m 1	Year11f 0	Year11m 0
3 = Year8f 3	Year8m 2	Year11f 5	Year11m 1
4 = Year8f 2	Year8m 0	Year11f 1	Year11m 3
5 = Year8f 1	Year8m 1	Year11f 0	Year11m 2

19. I revise what I write in the new language to improve my writing.

1 = 0			
2 = Year8f 1	Year8m 2	Year11f 1	Year11m 0
3 = Year8f 2	Year8m 4	Year11f 3	Year11m 3
4 = Year8f 1	Year8m 0	Year11f 2	Year11m 2
5 = Year8f 3	Year8m 1	Year11f 0	Year11m 1

20. I practice the sounds or alphabet of the new language.

1 =	Year8f 0	Year8m 0	Year11f 0	Year11m 2
2 =	Year8f 0	Year8m 1	Year11f 1	Year11m 1
3 =	Year8f 0	Year8m 4	Year11f 3	Year11m 1
4 =	Year8f 3	Year8m 1	Year11f 2	Year11m 1
5 =	Year8f 4	Year8m 1	Year11f 0	Year11m 1

21. I use idioms or other routines in the new language.

1 =	Year8f 0	Year8m 5	Year11f 2	Year11m 2
2 =	Year8f 2	Year8m 2	Year11f 1	Year11m 1
3 =	Year8f 4	Year8m 0	Year11f 2	Year11m 3
4 =	Year8f 1	Year8m 0	Year11f 1	Year11m 0
5 = 0				

22. I use familiar words in different combinations to make new sentences.

1 =	Year8f 0	Year8m 3	Year11f 0	Year11m 0
2 =	Year8f 2	Year8m 0	Year11f 1	Year11m 2
3 =	Year8f 2	Year8m 3	Year11f 3	Year11m 4
4 =	Year8f 3	Year8m 1	Year11f 2	Year11m 0
5 = 0				

23. I initiate conversations in the new language.

1 =	Year8f 1	Year8m 1	Year11f 0	Year11m 2
2 =	Year8f 1	Year8m 4	Year11f 4	Year11m 3
3 =	Year8f 4	Year8m 2	Year11f 2	Year11m 0
4 =	Year8f 0	Year8m 0	Year11f 0	Year11m 1
5 =	Year8f 1	Year8m 0	Year11f 0	Year11m 0

24. I watch TV shows or movies or listen to the radio in the new language.

1 =	Year8f 3	Year8m 6	Year11f 2	Year11m 2
2 =	Year8f 2	Year8m 1	Year11f 4	Year11m 0
3 =	Year8f 1	Year8m 0	Year11f 0	Year11m 4
4 = 0				
5 =	Year8f 1	Year8m 0	Year11f 0	Year11m 0

25. I try to think in the new language.

1 = Year8f 2	Year8m 2	Year11f 1	Year11m 2
2 = Year8f 2	Year8m 3	Year11f 4	Year11m 1
3 = Year8f 2	Year8m 0	Year11f 1	Year11m 2
4 = Year8f 0	Year8m 2	Year11f 0	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

26. I attend and participate in out-of-class events where the new language is spoken.

1 = Year8f 3	Year8m 5	Year11f 4	Year11m 3
2 = Year8f 1	Year8m 1	Year11f 1	Year11m 1
3 = Year8f 1	Year8m 1	Year11f 1	Year11m 1
4 = Year8f 1	Year8m 0	Year11f 0	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

27. I read for pleasure in the new language.

1 = Year8f 1	Year8m 6	Year11f 5	Year11m 2
2 = Year8f 4	Year8m 1	Year11f 1	Year11m 4
3 = 0			
4 = Year8f 2	Year8m 0	Year11f 0	Year11m 0
5 = 0			

28. I write personal notes, messages, letters, or reports in the new language.

1 = Year8f 4	Year8m 4	Year11f 3	Year11m 3
2 = Year8f 2	Year8m 3	Year11f 1	Year11m 3
3 = Year8f 1	Year8m 0	Year11f 1	Year11m 0
4 = Year8f 0	Year8m 0	Year11f 1	Year11m 0
5 = 0			

29. I skim the reading passage first to get the main idea, then I go back and read it more carefully.

1 = Year8f 2	Year8m 2	Year11f 0	Year11m 0
2 = Year8f 0	Year8m 3	Year11f 0	Year11m 0
3 = Year8f 3	Year8m 2	Year11f 3	Year11m 2
4 = Year8f 2	Year8m 0	Year11f 2	Year 11m 2

5 = Year8f 0   Year8m 0   Year11f 1   Year11m 2

30. I seek specific details in what I hear or read.

1 = Year8f 1   Year8m 1   Year11f 0   Year11m 0
2 = Year8f 3   Year8m 1   Year11f 1   Year11m 1
3 = Year8f 2   Year8m 1   Year11f 1   Year11m 4
4 = Year8f 1   Year8m 3   Year11f 1   Year11m 1
5 = Year8f 0   Year8m 1   Year11f 3   Year11m 0

31. I use reference materials such as glossaries or dictionaries to help me use the new language.

1 = Year8f 2   Year8m 3   Year11f 0   Year11m 1
2 = Year8f 1   Year8m 2   Year11f 1   Year11m 1
3 = Year8f 2   Year8m 2   Year11f 2   Year11m 1
4 = Year8f 1   Year8m 0   Year11f 1   Year11m 2
5 = Year8f 1   Year8m 0   Year11f 2   Year11m 1

32. I take notes in class in the new language.

1 = Year8f 1   Year8m 0   Year11f 0   Year11m 0
2 = Year8f 2   Year8m 3   Year11f 1   Year11m 1
3 = Year8f 1   Year8m 2   Year11f 1   Year11m 0
4 = Year8f 2   Year8m 1   Year11f 4   Year11m 2
5 = Year8f 1   Year8m 1   Year11f 0   Year11m 3

33. I make summaries of the new language material.

1 = Year8f 2   Year8m 2   Year11f 0   Year11m 1
2 = Year8f 3   Year8m 3   Year11f 1   Year11m 1
3 = Year8f 2   Year8m 2   Year11f 3   Year11m 2
4 = Year8f 0   Year8m 0   Year11f 2   Year11m 0
5 = Year8f 0   Year8m 0   Year11f 0   Year11m 2

34. I apply general rules to new situations when using the language.

1 = Year8f 3   Year8m 1   Year11f 0   Year11m 0
2 = Year8f 2   Year8m 2   Year11f 0   Year11m 2

3 = Year8f 2	Year8m 1	Year11f 4	Year11m 2
4 = Year8f 0	Year8m 1	Year11f 1	Year11m 2
5 = Year8f 0	Year8m 2	Year11f 1	Year11m 0

35. I find the meaning of a word by dividing the word into parts which I understand.

1 = Year8f 2	Year8m 2	Year11f 1	Year11m 1
2 = Year8f 0	Year8m 1	Year11f 2	Year11m 1
3 = Year8f 1	Year8m 4	Year11f 0	Year11m 2
4 = Year8f 3	Year8m 0	Year11f 1	Year11m 2
5 = Year8f 1	Year8m 0	Year11f 2	Year11m 0

36. I look for similarities and contrasts between the new language and my own.

1 = Year8f 0	Year8m 1	Year11f 0	Year11m 2
2 = Year8f 4	Year8m 1	Year11f 1	Year11m 2
3 = Year8f 0	Year8m 3	Year11f 1	Year11m 2
4 = Year8f 2	Year8m 1	Year11f 2	Year11m 0
5 = Year8f 1	Year8m 1	Year11f 2	Year11m 0

37. I try to understand what I have heard or read without translating it word-for-word into my own language.

1 = Year8f 1	Year8m 0	Year11f 0	Year11m 0
2 = Year8f 2	Year8m 3	Year11f 0	Year11m 0
3 = Year8f 2	Year8m 2	Year11f 2	Year11m 3
4 = Year8f 1	Year8m 2	Year11f 2	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 2	Year11m 2

38. I am cautious about transferring words or concepts directly from my language to the new language.

1 = Year8f 0	Year8m 1	Year11f 0	Year11m 0
2 = Year8f 2	Year8m 0	Year11f 1	Year11m 1
3 = Year8f 3	Year8m 3	Year11f 2	Year11m 2
4 = Year8f 2	Year8m 1	Year11f 3	Year11m 3
5 = Year8f 0	Year8m 2	Year11f 0	Year11m 0

39. I look for patterns in the new language.

1 =	Year8f 0	Year8m 2	Year11f 0	Year11m 0
2 =	Year8f 5	Year8m 0	Year11f 0	Year11m 1
3 =	Year8f 0	Year8m 3	Year11f 2	Year11m 2
4 =	Year8f 0	Year8m 2	Year11f 2	Year11m 2
5 =	Year8f 2	Year8m 0	Year11f 2	Year11m 1

40. I develop my own understanding of how the language works, even if sometimes I have to revise my understanding based on new information.

1 =	Year8f 1	Year8m 2	Year11f 0	Year11m 0
2 =	Year8f 2	Year8m 2	Year11f 1	Year11m 1
3 =	Year8f 2	Year8m 2	Year11f 4	Year11m 4
4 =	Year8f 2	Year8m 1	Year11f 1	Year11m 0
5 =	Year8f 0	Year8m 0	Year11f 0	Year11m 1

Compensation

1. 3 out of 7 Year 8 Females had an average frequency response greater than 3 with 1 student greater than 4.
2. 3 out of 7 Year 8 Males had an average frequency response greater than 3.
3. 6 out of 6 Year 11 Females had an average frequency response greater than 3 with 2 students greater than 4.
4. 4 out of 6 Year 11 Males had an average frequency response greater than 3 with 2 students greater than 4.
5. A t test of significance showed no significant difference between Year 8 Males and Females based on 7 cases (t=-0.04, df=6, p=0.97).
6. A t test of significance showed no significant difference between Year 11 Males and Females based on 6 cases (t=-0.20, df=5, p=0.85).
7. A t test of significance showed no significant difference between Year 8 Males and Year 11 Males based on 6 cases (t=-1.74, df=5, p=0.14).
8. A t test of significance showed no significant difference between Year 8 Females and Year 11 Females based on 6 cases (t=-1.45, df=5, p=0.21).
9. A t test of significance showed no significant difference between Year 8 Males/Females and Year 11 Males/Females based on 12 cases (t=-2.14, df=11, p=0.06).

41. When I do not understand all the words I read or hear, I guess the general meaning by using any clue I can find, for example, clues from the context or situation.

```
1 = 0
2 = Year8f 3      Year8m 1      Year11f 0      Year11m 0
3 = Year8f 2      Year8m 4      Year11f 0      Year11m 2
4 = Year8f 0      Year8m 2      Year11f 4      Year11m 2
5 = Year8f 2      Year8m 0      Year11f 2      Year11m 2
```

42. I read without looking up every unfamiliar word.

```
1 = Year8f 1      Year8m 1      Year11f 0      Year11m 0
2 = Year8f 4      Year8m 0      Year11f 1      Year11m 0
3 = Year8f 1      Year8m 3      Year11f 3      Year11m 2
4 = Year8f 1      Year8m 2      Year11f 2      Year11m 1
5 = Year8f 0      Year8m 1      Year11f 0      Year11m 3
```

43. In a conversation I anticipate what the other person is going to say based on what has been said so far.

```
1 = Year8f 0      Year8m 2      Year11f 0      Year11m 0
2 = Year8f 4      Year8m 3      Year11f 0      Year11m 0
3 = Year8f 1      Year8m 1      Year11f 3      Year11m 2
4 = Year8f 2      Year8m 1      Year11f 3      Year11m 4
5 = 0
```

44. If I am speaking and cannot think of the right expression, I use gestures or switch back to my own language momentarily.

```
1 = Year8f 1      Year8m 1      Year11f 0      Year11m 1
2 = Year8f 1      Year8m 0      Year11f 0      Year11m 1
3 = Year8f 1      Year8m 3      Year11f 0      Year11m 2
4 = Year8f 3      Year8m 1      Year11f 3      Year11m 1
5 = Year8f 1      Year8m 2      Year11f 3      Year11m 1
```

45. I ask the other person to tell me the right word if I cannot think of it in a conversation.

```
1 = Year8f 1      Year8m 1      Year11f 0      Year11m 0
2 = Year8f 1      Year8m 1      Year11f 0      Year11m 0
3 = Year8f 2      Year8m 0      Year11f 2      Year11m 1
4 = Year8f 2      Year8m 3      Year11f 2      Year11m 4
5 = Year8f 1      Year8m 2      Year11f 2      Year11m 1
```

46. When I cannot think of the correct expression to say or write, I find a different way to express the idea; for example, I use a synonym or describe the idea.

```
1 = Year8f 1      Year8m 3      Year11f 0      Year11m 1
2 = Year8f 2      Year8m 1      Year11f 1      Year11m 2
3 = Year8f 1      Year8m 1      Year11f 3      Year11m 1
4 = Year8f 2      Year8m 2      Year11f 2      Year11m 1
5 = Year8f 1      Year8m 0      Year11f 0      Year11m 1
```

47. I make up new words if I do not know the right ones.

```
1 = Year8f 2      Year8m 3      Year11f 2      Year11m 2
2 = Year8f 3      Year8m 1      Year11f 3      Year11m 1
3 = Year8f 1      Year8m 2      Year11f 1      Year11m 1
4 = Year8f 4      Year8m 1      Year11f 0      Year11m 1
5 = Year8f 0      Year8m 0      Year11f 0      Year11m 1
```

48. I direct the conversation to a topic for which I know the words.

```
1 = Year8f 1      Year8m 2      Year11f 0      Year11m 1
2 = Year8f 0      Year8m 1      Year11f 1      Year11m 0
3 = Year8f 2      Year8m 1      Year11f 1      Year11m 2
4 = Year8f 4      Year8m 2      Year11f 2      Year11m 2
5 = Year8f 0      Year8m 1      Year11f 2      Year11m 1
```

Metacognitive

1. 6 out of 7 Year 8 Females had an average frequency response greater than 3 with 1 student greater than 4.
2. 2 out of 7 Year 8 Males had an average frequency response greater than 3.
3. 5 out of 6 Year 11 Females had an average frequency response greater than 3.

4. 5 out of 6 Year 11 Males had an average frequency response greater than 3 with 1 student greater than 4.

5. A t test of significance showed significant difference between Year 8 Males and Females based on 7 cases (t=-3.44, df=6, p<0.05).

6. A t test of significance showed no significant difference between on Year 11 Males and Females based on 6 cases (t=1.00, df=5, p=0.36).

7. A t test of significance showed significant difference between Year 8 Males and Year 11 Males based on 6 cases (t=-3.70, df=5, p< 0.05).

8. A t test of significance showed no significant difference between Year 8 Females and Year 11 Females based on 6 cases (t=0.93, df=5, p=0.40).

9. A t test of significance showed no significant difference between Year 8 Males/Females and Year 11 Males/Females based on 12 cases (t=-1.18, df=11, p=0.26).

SILL

49. I preview the language lesson to get the general idea of what it is about, how it is organized, and how it relates to what I already know.

1 =	Year8f 0	Year8m 5	Year11f 1	Year11m 1
2 =	Year8f 1	Year8m 0	Year11f 2	Year11m 2
3 =	Year8f 3	Year8m 2	Year11f 2	Year11m 3
4 =	Year8f 3	Year8m 0	Year11f 0	Year11m 0
5 =	Year8f 0	Year8m 0	Year11f 1	Year11m 0

50. When someone is speaking the new language, I try to concentrate on what the person is saying and put unrelated topics out of my mind.

1 = 0				
2 =	Year8f 0	Year8m 1	Year11f 1	Year11m 0
3 =	Year8f 3	Year8m 2	Year11f 1	Year11m 0
4 =	Year8f 3	Year8m 3	Year11f 4	Year11m 5
5 =	Year8f 1	Year8m 1	Year11f 0	Year11m 1

51. I decide in advance to pay special attention to specific language aspects; for example, I focus the way native speakers pronounce certain sounds.

1 =	Year8f 0	Year8m 1	Year11f 1	Year11m 0
2 =	Year8f 1	Year8m 2	Year11f 0	Year11m 1
3 =	Year8f 4	Year8m 2	Year11f 3	Year11m 3
4 =	Year8f 2	Year8m 1	Year11f 2	Year11m 2
5 =	Year8f 0	Year8m 1	Year11f 0	Year11m 0

52. I try to find out all I can about how to be a better language learner by reading books or articles, or talking with others about how to learn.

1 = Year8f 1	Year8m 4	Year11f 1	Year11m 1
2 = Year8f 1	Year8m 2	Year11f 5	Year11m 3
3 = Year8f 4	Year8m 1	Year11f 0	Year11m 1
4 = Year8f 0	Year8m 0	Year11f 0	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

53. I arrange my schedule to study and practice the new language consistently, not just when there is the pressure of a test.

1 = Year8f 0	Year8m 3	Year11f 0	Year11m 0
2 = Year8f 0	Year8m 0	Year11f 3	Year11m 0
3 = Year8f 0	Year8m 1	Year11f 3	Year11m 1
4 = Year8f 5	Year8m 3	Year11f 0	Year11m 5
5 = Year8f 2	Year8m 0	Year11f 0	Year11m 0

54. I arrange my physical environment to promote learning; for instance, I find a quiet, comfortable place to review.

1 = 0			
2 = Year8f 1	Year8m 3	Year11f 1	Year11m 0
3 = Year8f 1	Year8m 1	Year11f 1	Year11m 3
4 = Year8f 3	Year8m 1	Year11f 3	Year11m 2
5 = Year8f 2	Year8m 2	Year11f 1	Year11m 1

55. I organize my language notebook to record important information.

1 = Year8f 0	Year8m 2	Year11f 0	Year11m 0
2 = 0			
3 = Year8f 1	Year8m 0	Year11f 0	Year11m 0
4 = Year8f 4	Year8m 2	Year11f 5	Year11m 4
5 = Year8f 2	Year8m 3	Year11f 1	Year11m 2

56. I plan my goals for language learning, for instance, how proficient I want to become or how I might want to use the language in the long run.

1 = Year8f 1	Year8m 2	Year11f 0	Year11m 0
2 = Year8f 1	Year8m 3	Year11f 1	Year11m 1
3 = Year8f 0	Year8m 2	Year11f 2	Year11m 1

| 4 = Year8f 3 | Year8m 0 | Year11f 2 | Year11m 2 |
| 5 = Year8f 2 | Year8m 0 | Year11f 1 | Year11m 2 |

57. I plan what I am going to accomplish in language learning each day or each week.

1 = Year8f 1	Year8m 4	Year11f 0	Year11m 2
2 = Year8f 1	Year8m 2	Year11f 5	Year11m 1
3 = Year8f 3	Year8m 1	Year11f 1	Year11m 1
4 = Year8f 2	Year8m 0	Year11f 0	Year11m 1
5 = Year8f 0	Year8m 0	Year11f 0	Year11m 1

58. I prepare for an upcoming language task (such as giving a talk in the new language) by considering the nature of the task, what I have to know, and my current language skills.

1 = Year8f 0	Year8m 3	Year11f 0	Year11m 0
2 = Year8f 0	Year8m 1	Year11f 0	Year11m 0
3 = Year8f 4	Year8m 3	Year11f 2	Year11m 3
4 = Year8f 2	Year8m 0	Year11f 3	Year11m 3
5 = Year8f 1	Year8m 0	Year11f 1	Year11m 0

59. I clearly identify the purpose of the language activity; for instance, in a listening task I might need to listen for the general idea or for specific facts.

1 = 0			
2 = Year8f 1	Year8m 2	Year11f 0	Year11m 0
3 = Year8f 3	Year8m 1	Year11f 0	Year11m 1
4 = Year8f 2	Year8m 3	Year11f 4	Year11m 4
5 = Year8f 1	Year8m 1	Year11f 2	Year11m 1

60. I take responsibility for finding opportunities to practice the new language.

1 = Year8f 0	Year8m 4	Year11f 1	Year11m 0
2 = Year8f 1	Year8m 1	Year11f 2	Year11m 1
3 = Year8f 3	Year8m 2	Year11f 3	Year11m 4
4 = Year8f 2	Year8m 0	Year11f 0	Year11m 1
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

61. I actively look for people with whom I can speak the new language.

1 = Year8f 0	Year8m 5	Year11f 2	Year11m 2
2 = Year8f 4	Year8m 1	Year11f 3	Year11m 1
3 = Year8f 1	Year8m 1	Year11f 1	Year11m 2
4 = Year8f 2	Year8m 0	Year11f 0	Year11m 0
5 = 0			

62. I try to notice my language errors and find out the reasons for them.

1 = Year8f 1	Year8m 1	Year11f 0	Year11m 0
2 = Year8f 0	Year8m 3	Year11f 0	Year11m 1
3 = Year8f 1	Year8m 1	Year11f 3	Year11m 1
4 = Year8f 4	Year8m 1	Year11f 2	Year11m 2
5 = Year8f 1	Year8m 1	Year11f 1	Year11m 2

63. I learn from my mistakes in using the new language.

1 = Year8f 0	Year8m 1	Year11f 0	Year11m 0
2 = Year8f 0	Year8m 2	Year11f 1	Year11m 0
3 = Year8f 0	Year8m 1	Year11f 1	Year11m 2
4 = Year8f 4	Year8m 2	Year11f 1	Year11m 1
5 = Year8f 3	Year8m 1	Year11f 3	Year11m 3

64. I evaluate the general progress I have made in learning the language.

1 = Year8f 1	Year8m 2	Year11f 1	Year11m 1
2 = Year8f 0	Year8m 2	Year11f 2	Year11m 0
3 = Year8f 1	Year8m 3	Year11f 2	Year11m 3
4 = Year8f 4	Year8m 0	Year11f 0	Year11m 2
5 = Year8f 1	Year8m 0	Year11f 1	Year11m 0

Affective

1. 4 out of 7 Year 8 Females had an average frequency response greater than 3 with 1 student greater than 4.
2. 0 out of 7 Year 8 Males had an average frequency response greater than 3.
3. 2 out of 6 Year 11 Females had an average frequency response greater than 3.
4. 1 out of 6 Year 11 Males had an average frequency response greater than 3.

5. A *t* test of significance showed significant difference between Year 8 Males and Females based on 7 cases (t=-3.97, df=6, $p<0.05$).

6. A *t* test of significance showed no significant difference between Year 11 Males and Females based on 6 cases (t=-1.59, df=5, p=0.17).

7. A *t* test of significance showed no significant difference between Year 8 Males and Year 11 Males based on 6 cases (t=-1.77, df=5, p=0.14).

8. A *t* test of significance showed no significant difference between Year 8 Females and Year 11 Females based on 6 cases (t=0.25, df=5, p=0.81).

9. A *t* test of significance showed no significant difference between Year 8 Males/Females and Year 11 Males/Females based on 12 cases (t=-0.99, df=11, t=0.34).

SILL

65. I try to relax whenever I feel anxious about using the new language.

1 = Year8f 1	Year8m 4	Year11f 0	Year11m 0
2 = Year8f 1	Year8m 1	Year11f 1	Year11m 2
3 = Year8f 1	Year8m 1	Year11f 0	Year11m 4
4 = Year8f 3	Year8m 1	Year11f 5	Year11m 0
5 = Year8f 1	Year8m 0	Year11f 0	Year11m 0

66. I make encouraging statements to myself so that I will continue to try hard and do my best in language learning.

1 = Year8f 0	Year8m 4	Year11f 0	Year11m 1
2 = Year8f 0	Year8m 2	Year11f 0	Year11m 2
3 = Year8f 2	Year8m 1	Year11f 3	Year11m 2
4 = Year8f 3	Year8m 0	Year11f 3	Year11m 1
5 = Year8f 2	Year8m 0	Year11f 0	Year11m 0

67. I actively encourage myself to take wise risks in language learning, such as guessing meanings or trying to speak, even though I might make some mistakes.

1 = 0			
2 = Year8f 0	Year8m 2	Year11f 0	Year11m 1
3 = Year8f 3	Year8m 3	Year11f 3	Year11m 2
4 = Year8f 3	Year8m 1	Year11f 3	Year11m 2
5 = Year8f 1	Year8m 1	Year11f 0	Year11m 1

68. I give myself a tangible reward when I have done something well in my language learning.

1 = Year8f 0   Year8m 5   Year11f 0   Year11m 4
2 = Year8f 4   Year8m 2   Year11f 2   Year11m 0
3 = Year8f 2   Year8m 0   Year11f 2   Year11m 1
4 = 0
5 = Year8f 1   Year8m 0   Year11f 2   Year11m 1

69. I pay attention to physical signs of stress that might affect my language learning.

1 = Year8f 2   Year8m 4   Year11f 1   Year11m 5
2 = Year8f 2   Year8m 2   Year11f 3   Year11m 1
3 = Year8f 0   Year8m 1   Year11f 0   Year11m 0
4 = Year8f 2   Year8m 0   Year11f 0   Year11m 0
5 = Year8f 1   Year8m 0   Year11f 2   Year11m 0

70. I keep a private diary or journal where I write my feelings about language learning.

1 = Year8f 1   Year8m 6   Year11f 5   Year11m 5
2 = Year8f 4   Year8m 1   Year11f 1   Year11m 0
3 = 0
4 = 0
5 = year8f 2   Year8m 0   Year11f 0   Year11m 1

71. I talk to someone I trust about my attitudes and feelings concerning the language learning process.

1 = Year8f 3   Year8m 5   Year11f 1   Year11m 3
2 = Year8f 3   Year8m 1   Year11f 4   Year11m 2
3 = Year8f 0   Year8m 1   Year11f 1   Year11m 1
4 = Year8f 1   Year8m 0   Year11f 0   Year11m 0
5 = 0

Social

1. 5 out of 7 Year 8 Females had an average frequency response greater than 3 with 1 student greater than 4.
2. 1 out of 7 Year 8 Males had an average frequency response greater than 3.
3. 4 out of 6 Year 11 Females had an average frequency response greater than 3.
4. 5 out of 6 Year 11 Males had an average frequency response greater than 3.
5. A t test of significance showed significant difference between Year 8 Males and Females based on 7 cases (t=-3.37, df=6, p<0.05).
6. A t test of significance showed no significant difference between Year 11 Males and Females based on 6 cases (t=-0.07, df=5, p=0.94).
7. A t test of significance showed significant difference between Year 8 Males and Year 11 Males based on 6 cases (t=-4.37, df=5, p<0.05).
8. A t test of significance showed no significant difference between Year 8 Females and Year 11 Females based on 6 cases (t=-0.12, df=5, p=0.91).
9. A t test of significance showed no significant difference between Year 8 Males/Females and Year 11 Males/Females based on 12 cases (t=-1.90, df=11, p=0.08).

SILL

72. If I do not understand, I ask the speaker to slow down, repeat, or clarify what was said.

1 = 0			
2 = Year8f 1	Year8m 2	Year11f 0	Year11m 0
3 = Year8f 2	Year8m 0	Year11f 2	Year11m 0
4 = Year8f 2	Year8m 3	Year11f 1	Year11m 1
5 = Year8f 2	Year8m 2	Year11f 3	Year11m 5

73. I ask other people to verify that I have understood or said something correctly.

1 = Year8f 0	Year8m 2	Year11f 0	Year11m 0
2 = Year8f 1	Year8m 2	Year11f 0	Year11m 0
3 = Year8f 1	Year8m 1	Year11f 2	Year11m 1
4 = Year8f 4	Year8m 2	Year11f 2	Year11m 3
5 = Year8f 1	Year8m 0	Year11f 2	Year11m 2

74. I ask other people to correct my pronunciation.

1 = Year8f 0   Year8m 2   Year11f 0   Year11m 0
2 = Year8f 0   Year8m 3   Year11f 3   Year11m 0
3 = Year8f 3   Year8m 1   Year11f 0   Year11m 2
4 = Year8f 3   Year8m 1   Year11f 2   Year11m 4
5 = Year8f 1   Year8m 0   Year11f 1   Year11m 0

75. I work with other language learners to practice, review, or share information.

1 = Year8f 0   Year8m 3   Year11f 0   Year11m 1
2 = Year8f 3   Year8m 3   Year11f 1   Year11m 2
3 = Year8f 2   Year8m 0   Year11f 1   Year11m 2
4 = Year8f 1   Year8m 1   Year11f 3   Year11m 1
5 = Year8f 1   Year8m 0   Year11f 1   Year11m 0

76. I have a regular language learning partner.

1 = Year8f 3   Year8m 5   Year11f 2   Year11m 5
2 = Year8f 1   Year8m 2   Year11f 0   Year11m 1
3 = Year8f 2   Year8m 0   Year11f 4   Year11m 0
4 = Year8f 1   Year8m 0   Year11f 0   Year11m 0
5 = 0

77. When I am talking with a native speaker, I try to let him or her know when I need help.

1 = Year8f 1   Year8m 4   Year11f 0   Year11m 0
2 = Year8f 3   Year8m 1   Year11f 1   Year11m 1
3 = Year8f 0   Year8m 0   Year11f 1   Year11m 1
4 = Year8f 2   Year8m 1   Year11f 4   Year11m 2
5 = Year8f 1   Year8m 1   Year11f 0   Year11m 0

78. In conversation with others in the new language, I ask questions in order to be as involved as possible and to show I am interested.

1 = Year8f 1   Year8m 2   Year11f 1   Year11m 0
2 = Year8f 0   Year8m 2   Year11f 1   Year11m 0
3 = Year8f 3   Year8m 3   Year11f 4   Year11m 4

4 = Year8f 3   Year8m 0   Year11f 0   Year11m 2

5 = 0

79. I try to learn about the culture of the place where the new language is spoken.

1 = Year8f 0   Year8m 1   Year11f 0   Year11m 0

2 = Year8f 0   Year8m 4   Year11f 1   Year11m 1

3 = Year8f 1   Year8m 1   Year11f 1   Year11m 2

4 = Year8f 4   Year8m 0   Year11f 3   Year11m 2

5 = Year8f 2   Year8m 1   Year11f 1   Year11m 1

80. I pay close attention to the thoughts and feelings of other people with whom I interact in the new language.

1 = Year8f 0   Year8m 5   Year11f 1   Year11m 1

2 = Year8f 1   Year8m 1   Year11f 0   Year11m 2

3 = Year8f 3   Year8m 1   Year11f 4   Year11m 2

4 = Year8f 3   Year8m 0   Year11f 1   Year11m 0

5 = Year8f 0   Year8m 0   Year11f 0   Year11m 1

Interview Analysis   **DIRECT STRATEGIES**   F=Female
                                                          M=Male

Classroom		**Non-Classroom**	
Memory	Yes No	Memory	Yes No
* Associating	9 F 1 M	* Associating	3F 6F 2M 2M
* Using flashcards	1 F 5 M	* Using flashcards	9F 5 M
* Structured Reviewing	2F 5 M	* Structured Reviewing	5F 5 M
* Going back to Refresh Memory	5F 5 M	* Going back to Refresh Memory	5F 7 M
		* Placing new Words in Groups	4F 4 M
		* Making Lists	5F 6F 5 M 4 M

Cognitive		**Cognitive**	
* Say or Write New Expressions Repeatedly	8F 6 M	* Say or Write New Expressions Repeatedly	3F 4 M
* Use Reference Materials	6F 7F 6M 3 M	* Use Reference Materials	3F 2 M
* Make Summaries	1F 0 M	* Make Summaries	8F 5F 5 M 5 M
* Analysing contrastively	5F 1 M	* Analysing Contrastively	0F 1 M
* Take notes in class	11F 5 M	* Initiating conversations	4F 2 M
* Taking care not to Translate Word-for-Word	2F 10F 1 M 8 M	* Watch TV/Listen Radio/ Movies in New Language	4F 9F 2 M 5 M
		* Attend/Participate out of Class Activities where Language is Spoken	2F 11F 2 M 7 M

Compensation			Compensation		
* Using Contextual Clues to Guess Meaning	2F 2M		* Using Contextual Clues to Guess Meaning	12F 7M	2M
* Getting Help	6F 4M		* Getting Help	0F 1M	

INDIRECT STRATEGIES

Metacognitive			Metacognitive		
* Arranging your Physical Environment	9F 8M	3F 1M	* Arranging you Physical Environment	13F 9M	
			* Previewing the Lesson	9F 2M	4F 7M
			* Study Schedule	4F 1M	9F 8M

Affective			Affective (responses all Year 11s)		
* Discussing your Feelings with Someone Else	1F 0M	4F 5M	* Discussing your Feelings with Someone Else	6F 7F	7F 7M

Social			Social		
* Asking others to Verify	12F 8M		* Asking Others to Verify	2F 1M	
* Working with Others	12F 7M	2M	* Working with Others	9F 1M	4F 8M
* Have a Regular Language Partner	10F 7M	2M	* Have a Regular Language Partner	7F 1M	4F 8M

Diary Analysis - Non-Classroom

Direct Strategies   F = Female

Memory   M = Male

* Creating Associations	3F	
* Placing New Words in a Context	1 M	
* Placing New Words in a Group	2F	
* Associating Sounds of the Word with Sounds of a Familiar Word	1 F	
* Using Rhyming to Remember	1 F	
* Using Imagery	2F	
* Making Lists	1 F	1 M
* Using Flashcards	7F	1 M
* Reviewing	4F	4 M
* Going Back to Refresh Memory	5F	5 M

Cognitive

* Saying or Writing Repeatedly	10F	8 M
* Reading Several Times	1 F	1 M
* Revising Characters	6F	5 M
* Practicing Sounds or Alphabet	5F	3 M
* Skimming	1F	
* Using Reference Materials	3F	
* Making notes	4F	1 M
* Making Summaries	4F	1 M
* Applying General Rules	1F	
* Taking Care not to Translate Word-for-Word	1 F	
* Looking for Patterns	1 F	

Compensation   None

Indirect Strategies
<u>Metacognitive</u>

* Previewing   1 F

* Arranging Schedule and Study
  Timetable   1 M

* Arranging Physical Environment   1 F

* Organizing Language Notebook   2 F

   <u>Affective</u>   None

   <u>Social</u>

* Have a Regular Language Partner   5 F   2 M

1. Pearson Correlation Matrix - Year Level

	A	B
A	1.000	
B	-0.005	1.000

Number Of Observations: 12

2. Pearson Correlation Matrix - Year 8s

	F	M
F	1.000	
M	-0.174	1.000

Number of Observations: 13

3. Pearson Correlation Matrix - Year 11s

	F	M
F	1.000	
M	0.081	1.000

Number of Observations: 12

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