ABSTRACT
              A study investigated whether a classification scheme
for learning strategies used in ESL (English-as-a-Second-Language)
instruction is applicable to strategies used in learning Japanese as
a second language. Four metacognitive strategies were examined
(directed attention, selective attention, self-monitoring,
self-management). Subjects were 30 students of Japanese enrolled in a
college summer language school and performing at three proficiency
levels (beginning, intermediate, advanced). They answered a
questionnaire concerning their use of eight reading strategies
(inferencing, keyword method, grouping, resourcing, transfer,
elaboration, imagery, deduction). Results indicate patterns in the
use of metacognitive and cognitive strategies. Students predominantly
reported using self-management; students at all levels reported using
inferencing most frequently and resourcing next most frequently.
Lower-level students used more imagery and elaboration than
higher-level students, and higher-level students used keyword,
transfer, and deduction more than lower-level students. Pre- and
posttests indicated that advanced students showed much smaller
achievement gains per strategy used than did intermediate students.
It is concluded that a strategy classification scheme based on the
distinction between cognitive and metacognitive strategies could be
useful in linking specific learning tasks with cognitive strategies
and instructional level. The questionnaire is appended. (MSE)

The Study on Reading Strategy of Students

Learning Japanese as a Second Language

by Kyoko Toriyama

Japan Center for Michigan Universities

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MCAA

Cleveland.

Krashen's Monitor Model (Krashen, 1982) does not allow for contributions of explicit linguistic knowledge (learning) to implicit linguistic knowledge (acquisition). Namely, conscious use of learning strategies will make little contribution to the development of language competence.

To effective learners, research efforts concentrating on "good language learners" (Naiman, 1978; Rubin 1975) had identified strategies reported by students or observed in language learning situations that appear to contribute to learning.

In cognitive psychology, studies of learning strategies with first-language learners have concentrated on determining the effects of strategy to train different kinds of tasks to learners. Findings from these studies generally indicated that strategy training is effective in improving the students' reading comprehension skill.

There has been no integration between cognitive psychology and second language research. Second language acquisition and cognitive psychology each has separate paradigms for describing second language acquisition(O'Malley, Chamot, 1990). Second language acquisition theories assume that language is learned separately from cognitive skills, operating according to different principles from most learned behaviors (Spolsky, 1985). One of the principal cognitive processes that has not been addressed in these theories is learning strategies, or the behaviors and thoughts that a learner engages in during learning that are intended to influence the learner's encoding process.

By considering second language acquistion as cognitive processes, we can understand the orientation of models of skill acquisition that would allow us to provide more detailed processes of second language acquisition. Thus we can describe how language learning ability can be improved.

There has been the classification scheme developed to describe learning strategies reported by ESL student; namely, metacognitive, cognitive, social mediation (O'Malley, Chamot, 1990). The learning strategies of foreign language students can also be classified as metacognitive, cognitive, or social/affective (O'Malley, Chamot, Stewner-Manzanares, Kupper, and Russo, 1985). However, there has been a few studies by Ito performed on learning strategies used by students learning Japanese as a Second Language (JSL).

Objective

The most important objective of this foreign language descriptive study is to discover whether the classification scheme developed to describe learning strategies reported by ESL students would be applicable to English speaking students learning JSL.

Therefore, our study focused on

1) quantifying learning strategies used by English-speaking college students,

2) determining if the use of strategies varies depending on the level of Japanese language proficiency,

3) attempting to relate those reported behaviors to the students increase in language proficiency during a certain period of time.

Metacognitive strategies involve thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place.

The following four metacognitive strategies reported in the survey were Directed attention, Selective attention, Self-Monitoring, and Self-Management. The higher ordered executive skills may entail plan and monitor the success of a learning activity.

1.Directed attention:	Deciding in advance to attend in general to a learning task and to ignore irrelevant distractors.
2.Selective attention:	Deciding in advance to attend to specific aspects of input, often by scanning for key words, concepts, and/or linguistic markers.
3.Self-monitoring:	Checking one's comprehension during listening or reading or checking the accuracy and/or appropriateness of one's oral or written production while it is taking place.
4.Self-management:	Understanding the conditions that help one learn and arranging for the presence of those conditions.

Cognitive strategies operate directly on incoming information, manipulating in ways that enhance learning. (O'Malley, Chamot, 1990). The eight cognitive strategies recognized were ; Inferencing, Keyword method, Grouping, Resourcing, Transfer, Elaboration, Imagery, and Deduction.

1. Inferencing: Using available information to guess meanings of new items, predict outcomes, or fill in missing information.

2. Keyword method: Remembering a new word in the second language by
1) identifying a familiar word in the first language that sounds like or otherwise resembles the new word, and
2) generating easily recalled images of some relationship with the first language homonym and the new word in the second language.

3. Grouping: Classifying words, terminology, or concepts according to their attributes or meaning.

4. Resourcing: Using target language reference materials such as dictionaries, encyclopedias, or textbooks.

Procedures

As a strategy assessment technique, we conducted a survey by using multiple-choice self-report questionnaire based on Oxford's "Language Learning Strategies" in 1990. This questionnaire was particularly accomodated to check the reading strategies.

The questionnaire presented 18 questions. Students' responses were chosen from the five numbers 1 to 5. The 5-point scale ranges from 1 for "never or almost never true" to 5 for "always or almost always true." The overall average indicates how often the students use those reading strategies in general.

The average of each category indicates the frequency of the use of particular strategy. The 18 questions belong to 12 categories of reading strategy definitions and classifications presented by O'Malley and Chamot's "Learning Strategies in Second Language

Acquisition" (1990).

The average for each level indicates the frequency of those reading strategies being used. The overall average indicates how often the students use those reading strategies in general.

Participants

The participants in this study were 30 students enrolled in the Middlebury Japanese School in the summer of 1993. The survey was performed between the 4th and the 6th week of the summer session which lasts nine weeks in total to cover a one-year program. The students participating in this study were classified according to the level of their Japanese language skill determined by an initial placement examination immediately before the start of the class and the subsequent placement according to the student's achievement judged by the interviews conducted by the head of the school and the chief of the grade. We categorized the levels determined by the placement test as Beginning (1st year, 1.5th year), Intermediate (2nd year, 2.5th year) and Advanced (3rd year, 4th year).

Result

The basic classification scheme proposed by O'Malley and Chamot (1990) consisting of metacognitive and cognitive strategies was used in the initial definition of strategies. The questionnaire had six metacognitive and twelve cognitive reading strategies.

More cognitive strategies (64.5 %) were used than metacognitive (34.5 %) by all the students. We found that more metacognitive strategies were used by higher level students. (Beginning 1, Intermediate 1.16, Advanced 1.18). Cognitive strategies were used most by Intermediate (1.29) followed by Advanced students (1.27) and Beginning (1).

Patterns emerged in the analyses of metacognitive and cognitive strategies. In the metacognitive strategy used, students predominantly reported using Self-management

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(51%). In cognitive strategy use, students at all levels reported using Inferencing most frequently (Beginning 23.7%, Intermediate 29.2%, Advanced 29.0%). The second strategy was Resourcing (20.9%, 16.7%, 18.2%). Other strategies showed the following tendency.

The lower level students used more Imagery and Elaboration than higher level students. Keyword, Transfer, and Deduction showed that higher level students use more than lower level students.

Conclusion

The objective of the foreign language descriptive study was to discover whether the classification scheme developed to describe learning reading strategies reported by ESL students would be applicable to English speaking students learning JSL.

Because cognitive strategies were used 80% more than metacognitive, we confirmed the distinction. We could determine that a strategy classification scheme based on the distinction between metacognitive and cognitive strategies to be useful to teach Japanese as a Second Language. Because cognitive strategies are directly related to specific learning tasks, the types of tasks required in a particular level can be expected to influence the cognitive strategies used to accomplish them.

Keyword	##	kanji recognition
Elaboration	##	new information
Imagery	##	less dependence on visuals
Deduction	#	rules applied
Transfer	#	linguistic knowledge

The result of the learners' strategies (metacognitive and cognitive) as judged by the average scores on reading section of placement and exit tests indicated that Advanced level students achieve more points per strategy (2.47) whereas Intermediate level students score the lower point per strategy (2.23). Concerning the improvement of the

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scores, Intermediate level showed the progress of 57% (51.18% to 80.15%). Advanced level students demonstrated an increase of 6 % (81.77% to 87.00%).

It is evident that the Intermediate students' progress is remarkable in contrast with the Advanced level students. Intermediate students' overall average of cognitive strategy use is 3.0 while Advanced students' is 2.9. Elaboration (4.1), Inferencing (3.5), and Imagery (3.5) were the reading strategies that recorded higher average than Advanced level students. These three strategies could be the key cognitive strategies to be investigated further to train reading strategies.

**Table 1 Average Value of Metacognitive Strategies Chosen
by the Students within the Scale of 1 to 5**

Reading Strategy	Level			Mean of Level
	Beg.	Int.	Adv.	
Selective Attention	2.3	2.4	2.6	2.5
Directed Attention	3.4	3.9	3.9	3.8
Self-Monitoring	2.7	4.0	3.5	3.2
Self-Management	3.0	3.3	3.5	3.3
Mean of Strategy	2.9	3.3	3.4	3.2

Table 2 Average Value of Cognitive Strategies Chosen
by the Students within the Scale of 1 to 5

Reading Strategy	Level			Mean
	Beg.	Int.	Adv.	
Inferencing	2.2	3.5	3.4	3.2
Keyword method	1.8	1.7	1.6	1.7
Grouping	2.8	2.9	3.0	2.9
Resourcing	2.9	3.0	3.2	3.2
Transfer	2.1	3.9	4.1	3.6
Elaboration	3.5	4.1	3.4	3.9
Imagery	3.0	3.5	2.9	3.1
Deduction	2.2	3.3	3.5	3.2
Mean	2.5	3.3	3.2	3.2

Table 3 Mean of Metacognitive and Cognitive Reading Strategies

Reading Strategy	Level			Mean
	Beg.	Int.	Adv.	
Mean of Metacognitive and Cognitive Reading Strategy	2.7	3.3	3.3	3.2

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名前　　　　　　　　　　　　　　　　学年（該当するものに○）
NAME _____　　　GRADE level: 1, 1.5, 2, 2.5, 3, 4
　　　　　　　　　　　　　　　　　　　(circle one)

このアンケートは、あなたの日本語の読解手段をたずねるものです。次の質問に
答えて下さい。記入が終わったら、二か国語秘書のグレッグさんに渡して下さい。
締め切りは７月 １２日です。ご協力ありがとうございます。

The purpose of this questionnaire is to understand the reading strategies
employed by students learning the Japanese language. Please fill out the
following questionnaire and return it to the bilingual secretary, Greg, by
Monday July 12th. Thank you for your cooperation.

＊＊＊＊＊＊＊＊＊　　　＊＊＊＊＊＊＊＊＊＊　　　＊＊＊＊＊＊＊＊＊

平均的読解方法　（該当するものに x を付けて下さい。）
General Reading Behavior (check one)

( )　まれに翻訳する。内容にそって推測する。
　　　Rarely translate; guess contextually.

( )　翻訳する。内容に関係なく推測する。
　　　Translate; guess without full understanding of the context.

( )　翻訳する、内容にそって推測する。
　　　Translate; guess only after fully understanding the context.

( )　翻訳する。まれに推測する。
　　　Translate; rarely guess.

個別読解方法
Specific Strategies

1. 全然またはほとんど該当しない.
   Never or almost never true.

2. だいたい当てはまらない.
   Generally not true.

3. どちらかと言うとそうだ.
   Somewhat true.

4. だいたい当てはまる.
   Generally true.

5. 常に、またはほぼ常に該当する.
   Always or almost always true .

**Circle the number that corresponds to your strategy.

a. 意味を念頭に置く。　　　　Cognitive　　Inferencing
   Keep meaning of each word in mind.　　1　　2　　3　　4　　5

b. 分からない言葉は飛ばす．Metacognitive　　Directed Attention
   Skip unknown words　　　　　　　1　　2　　3　　4　　5
   (guess contexually).

c. 前後の文や段落の内容を考慮する。　　Cognitive　　Elaboration
   Use context in preceding and suceeding　1　　2　　3　　4　　5
   sentences and paragraphs.

d. 品詞を見分ける。　　　　　Cognitive　　Grouping
   Identify grammatical category (verb, noun,　1　　2　　3　　4　　5
   and, etc.) of words.

e. 推測を重視する。　　　　　　Cognitive　　　Transfer
Make educated guesses.　　　　　　　　　　1　　2　　3　　4　　5

f. 意味がつかめなければ読み続ける。　Metacognitive　　Self-management
Continue reading without full understanding　1　　2　　3　　4　　5
of the sentence.

g. 同語源語を判別する。　　　　　Cognitive　　　Keyword Method
Recognize cognates (i.e. use knowledge of　　1　　2　　3　　4　　5
another foreign language that utilizes kanji).

h. 社会知識を駆使する。　　　　　Metacognitive　　Self-management
Use knowledge of the world.　　　　　　　　1　　2　　3　　4　　5

i. 分からない単語を分析する。　　Cognitive　　　Deduction
Analyze unknown words (i.e. with previous
knowledge of individual kanji, guess the　　1　　2　　3　　4　　5
meaning of unknown compound kanji).

j. 文章が意味を持つことを想定して読む。　Metacognitive　　Selective Attention
Attempt to follow the general flow of the　　1　　2　　3　　4　　5
text's argument.

k. 単語1つ1つをおさえるのではなく、　Metacognitive　　Self-management
文脈の意味を読み取る。　　　　　　　　　　1　　2　　3　　4　　5
Read to identify meaning rather than words.

l. 意味を当てる為に推考する。　　Cognitive　　　Inferencing
Take chances in order to identify meaning.　1　　2　　3　　4　　5

m. 図版を参照する。　　　　　　Cognitive　　　Imagery
Use illustrations (if provided).　　　　　　1　　2　　3　　4　　5

n. 最後の手段として単語表を参照する。　Cognitive　　　Resourcing
Use vocabulary list as a last resort.　　　　1　　2　　3　　4　　5

o. 単語の正しい意味を辞書で調べる。   Cognitive   Resourcing
   Look up words in the dictionary.   1   2   3   4   5

p. 不必要な単語を飛ばす。   Metacognitive Directed Attention
   Skip unnecessary words.   1   2   3   4   5

q. 仮定に基づき読む。   Metacognitive Self-monitoring
   After hypothesizing, continue reading to   1   2   3   4   5
   check one's initial thoughts.

r. 文脈から様々なことを推測する。   Cognitive   Keyword Method
   Use a variety of context clues (i.e. key   1   2   3   4   5
   words, grammatical patterns, etc.).