Redesigning Language Learning Strategy Classifications

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Abstract: In the current study a total of 79 university students of a 3-month English course participated. This study attempted to explore what learning strategies language Indonesian learners used and how the strategies were classified. To increase the internal consistency of the hypothesized scales, Cronbach Alpha coefficients of internal consistency were computed for each scale of skill-based areas, namely: speaking, listening, reading and writing. Correlation analysis was also conducted to see how variance of speaking, listening, reading and writing in language learning strategy questionnaire were correlated. The result shows that each skill-based scale has relatively high reliability with alpha .73, .67, .69, .80 for listening, speaking, reading and writing respectively. It is also found out that the four scales are significantly and positively correlated. The classification of learning strategies based on the language skills is a new way of learning strategy measurement, which may be worth considering in the Indonesian context in which English is learned as a foreign language.

Key words: learning strategy, strategy classification

Different researchers on learning strategies in SLA seem to have used different terms and different ways of investigation. There have been a number of attempts to group language learning strategies into meaningful categories. Six major studies on language learning strategies will be described and compared in a single framework. These are the studies by Rubin (1975), Fillmore (1979), Naiman (1978), Politzer and McGroarty (1985), O'Malley (1985), Oxford and Nyikos (1989) and Wenden (1991).

Rubin (1975), for example, suggested a list that would assign all language learning strategies to seven categories, namely: being a willing and accurate guesser, having a strong drive to communicate, being willing to make mistakes, looking constantly for patterns in the language, practicing, monitoring his/her own and the speech of others, and attending to meaning.

A taxonomy that classifies language learning strategies under two categories was proposed by Fillmore (1979). Fillmore (1979) studied the process of language learning by observing five Mexican children who were attending English speaking school in California. The study followed a qualitative research paradigm, which relied on the interpretation of recorded data. Her study reveals that there were two categories of strategies that were helpful for children. The first category was called *social strategies* and the second category was called *cognitive strategies*.

Similar to Fillmore's taxonomy, which emphasized social and cognitive processes, is another taxonomy suggested by Naiman et al (1978). Their study revealed that good language learners used at least five common strategies, namely: *the active task approach, the realization of language as a system. the realization of language as a means of communication and interaction, management of affective demands, monitoring of L2 performance.*

Politzer and McGroarty (1985) also suggested a taxonomy of language learning strategies. Their taxonomy, which was based on a language learning behavior questionnaire, emphasized students' behaviors in learning a second language. They used a predefined questionnaire, which divided learning behavior and strategies into *classroom study, individual study,* and *social interaction outside the classroom behavior*. Their study revealed that students from different cultural backgrounds used different language learning strategies.

More productive schemes on language learning strategies have been proposed by O'Malley (1985; see also O'Malley and Chamot, 1990), who considered psychologically based issues in their taxonomies. They introduced categories that involved self-awareness. Processes in this category were introduced under the name "metacognitive". In O'Malley et al.'s study (1985) the classification consists of three categories, namely: metacognitive strategies, cognitive strategies, and social strategies, whereas in

Oxford's study (1990) six categories have been proposed, namely: cognitive strategies, memory, compensation, metacognitive strategies, affective strategies, and social strategies. O'Malley collected data by interviewing students and teachers and by conducting observations, whereas Oxford used a language learning questionnaire, which she called the Strategy Inventory for Language Learning (SILL).

Wenden (1991a) also classified language learning strategies into two broad categories. The first category, cognitive strategies, involves selecting information from incoming data, comprehending and storing the information, and retrieving the information. Her concept of language learning strategies within the cognitive category was mostly based on learning processes employed by language learners in previous studies (O'Malley, 1985; O'Malley and Chamot, 1990; and Rubin, 1975). The second category, which is called self-management strategies, involves planning, monitoring and evaluating. In her classification social strategies were classified under cognitive strategies (Wenden, 1991: 23).

In this study three major categories of strategies: metacognitive, cognitive, and social strategies are included, following the major categories as exemplified in the studies described above. Unlike the previous studies, learning strategy classification in this study groups the strategies based on the four language skills: listening, speaking, reading and writing. Therefore, each skill-based category has groups of strategies which belong to one of the three classifications: metacognitive, cognitive and social classification.

Cognitive strategies developed in the current study refer to all mental processes, except processes that involve self-monitoring and self-evaluating, in order to learn another language while the metacognitive strategies include self-direction, self-monitoring, self-evaluating and self-correcting. The other category of learning strategies introduced in this study are social strategies. The social category includes not only all processes that take place in groups, but also includes individual activities in social settings aimed to acquire another language. An example of this would be reading letters from friends in order to have the opportunity to practice English.

Many studies have been conducted to classify language learning strategies. Different ways of collecting data and different settings may have resulted in different taxonomies of language learning strategies. This study was conducted to explore what language learning strategies Indonesian students reported using were identified and how the strategies were classified into a learning strategy measurement.

METHODS

The focus of the observations was the activities of the students during speaking classes. The original sheets of observation were handwritten in English. The activities of the students during the observations were coded based on the *social strategies*. The data of the observations, including the data of the interviews, were considered to prepare the final questionnaire, which is called Language Learning Strategy Questionnaire or LLSQ.

In the LLSQ, the students were provided with 20 items in each skill-based category (speaking, listening, reading, and writing). Each category consisted of 3 groups of strategies, namely: cognitive strategies, metacognitive strategies, and social strategies. The LLSQ consisted of 80 items for the four skills. In each category, there was an item 21, with a space without a statement, which was meant for the students to write down a strategy that they used but which was not included in the LLSQ (see Appendix 1).

The statements in the LLSQ were coded. Items numbers 1-10 of speaking category are classified under cognitive strategies, numbers 11-15 are metacognitive strategies and numbers 16-20 are social strategies. In listening category items numbers 1-11 are classified under cognitive strategies, numbers 12-17 are metacognitive strategies and numbers 18-20 are social strategies. Items numbers 1-11 of reading category are classified under cognitive strategies, numbers 12-17 are metacognitive strategies and numbers 16-20 are social strategies. In writing category items numbers 1-13 are classified under cognitive strategies, numbers 14-17 are metacognitive strategies and numbers 18-20 are social strategies.

The participants in this study consisted of 79 university students who were taking an English course at the language center where they are studying. The observations of the speaking classes of each level were conducted from the first week of the program and lasted until the last week when the participants were given the Language Learning Strategies Questionnaire. The Language Learning Strategies Questionnaire was

given in the last week of the program before the students were given a post-test.

The data collected from the questionnaires were analyzed to measure internal consistency of hypothesized scales by using item-to scale coefficient. This was done to obtain an indicator of the scales' unidimensionality by determining if the responses to a particular item reflected the pattern of responses on other items (de Vaus, 1985: 88-89). If it did not, it was assumed that the item was measuring something different from the other items and it was dropped from the scale. The analysis was conducted by using the Cronbach alpha coefficient. To improve contruct validity of items, inter-rater validity (three raters) was also undertaken. This validity was meant to find the extent of expert agreement on the classification of items. They were given oral explanation on the concepts of metacognitive, deep level and surface level strategies. Then, they were asked to group the items of the LLSQ into metacognitive, deep level or surface level strategies. The answers allowed items to be rated in terms of the extent of rater agreement. Very Low agreement ranged from 0% to 20%, Low from 21% to 40%, Moderate from 41% to 60%, High from 61% to 80%, and Very High from 81% to 100%.

FINDINGS

The reliability and validity tests of the LLSQ were needed since the LLSQ was a newly developed questionnaire and it was meant to be used as a learning strategy measurement. Reliability can refer to the tendency toward consistency found in repeated measurements of the same phenomenon (Carmines & Zeller, 1979: 12). It can also refer to stability of measurement over time, an approach which was not suited to the current investigation. In assessing internal consistency, the Cronbach alpha reliability is the most appropriate reliability index to be used on continuous data, such as that produced by a Likert-type scale (Oxford & Burry-Stock, 1995: 6). Since the LLSQ is a questionnaire for language learning strategies that has been developed using a Likert scale, a Cronbach alpha was used to measure the internal consistency of the items of the questionnaire.

As mentioned earlier, in this study learning strategy items were divided into four areas of language skill: speaking, listening, reading and writing. To increase the internal consistency of the hypothesized scales,

Cronbach Alpha coefficients of internal consistency were computed for each scale of skill-based areas, namely: speaking, listening, reading and writing. Least consistent items if any were dropped from the scales but fortunately no item of the questionnaire was dropped in this study. Even though the magnitude levels of some categories were not very high, no item of the categories was dropped in order to maintain the equal number of items of each scale equal (20 items). The reliability of the LLSQ was determined for each individual category of language learning strategy.

Table 1. Result of internal consistency of the skill-based LLSQ

No	Variance	Number of items	Alpha
1	Speaking	20	.7321
2	Listening	20	.6742
3	Reading	20	.6932
4	Writing	20	.7999

With 79 participants, the Cronbach alphas of sub-scales of the LLSQ were .73, 67, 69 and 80 for speaking, listening, reading and writing respectively. Table 1 shows that the Cronbach's alpha of the strategies is moderate but acceptable. The moderate levels of Cronbach's alpha showed that the scales were internally consistent. The criteria on reliability (internal consistency) were met in this analysis.

As mentioned earlier, the construct validity of the questionnaire was also measured through peer-rating validity. The result of the rating supports the items of the questionnaire and the categories under which the items are classified, with the agreement from 60% to 100%. Some of the items were also rephrased based on the result of the discussion with the raters in order to increase the face validity of the questionarre.

To determine whether each skill-based category of learning strategies has relationships with the other strategies, correlation analysis was undertaken. The data on Table 2 shows the intercorrelations among strategies.

The analysis shown on Table 2 indicates to some extent all of the scales are positively and significantly correlated (see Appendix 2). This implies all skill-based strategies were positively and significantly correlated and share substantive amount of variance.

Table 2. Correlations Among the Categories

	Listening	Speaking	Reading	Writing
Listening		.617**	.611**	.598**
Speaking	.617**		.614**	.472**
Reading	.611**	.614**		.647**
Writing	.598**	.472**	.647**	

Note ** = significant at the level 0.01

DISCUSSION

Previous studies on language learning strategies have uncovered what students are doing when they are learning a second/foreign language. However, only a few researchers have investigated the reliability and validity of the instruments they used for data collection. As stated by Oxford and Burry-Stock (1995: 3-4), many researchers analyzed the collected data with "a priori" concepts without measuring the validity and reliability of their instruments. The researchers analyzed the collected data by putting them into prepared slots. Still, some others interpreted the observable data only, without considering data related to the mental processing of the learners, for which an interview with students is required. Oxford's Strategy Inventory for Language Learning (SILL, 1990) is among few strategy instruments that involves what language learners from their point of view and for which validity and reliability have been published (Oxford & Burry-Stock, 1995). However, the grouping of the language learning strategies in Oxford's SILL by factor analyses is still dependent on the environment of the learners. The SILL, which has six categories, has been used in different countries (Puerto Rico, Taiwan, PR China, Japan, Egypt, and USA) and the findings support 9 categories that are slightly different among the countries even though there have been some categories in common (Oxford & Burry-Stock, 1995: 15).

The reliability and validity of the LLSQ have been statistically reviewed. Reliability is discussed by considering the internal consistency of the items of the language learning categories and the correlation among the skill- grouped categories. The validity of the LLSQ by reference to the construct validity is also discussed and it was conducted by using peer rating.

The classification of the language learning strategies in this study was based on theory driving decision making and theories of skill-based learning strategies. The analysis indicates to some extent all of the scales are positively and significantly correlated. Since, four scales have significant intercorrelations, in this study they were grouped into one single scale that was called *Language Learning Strategy Classification* (LLSQ). These strategies cover four areas of the language skills: speaking, listening, reading and writing and each area consists of 20 items.

The intercorrelations among the strategies means that increased frequency of strategy use under one category is associated with an increase in the use of those of the other categories. To the degree that they correlate, strategies share variance. The findings in this study, supported by Purpura (1997) and Wenden (1991b), may be interpreted as a sign of mutual conceptual dependence among strategies. This is probably understood as evidence that in learning a foreign language learners do not rely on a single category or certain groups of strategies only, but employ many strategies.

CONCLUSION AND SUGGESTION

This study has described to what extent the Language Learning Strategy Questionnaire (LLSQ) provides an acceptable classification of language learning strategies, also grouping of the strategies into four categories: listening, speaking, reading and writing strategies, is relatively new. The reliability the LLSQ has also been statistically reviewed. Reliability is discussed by considering the internal consistency of the items of the language learning under each skill-based category. Correlation analysis is also discussed to show that the learning strategy measurement that consists four groups of skill-based categories refers to one construct, namely learning strategy classification that is named Language Learning Strategy Questionnaire or LLSQ.

With a relatively small number of participants (n= 79), this study has indicated that the pattern of the language learning strategies used by the Indonesian students has produced a strategy taxonomy that consists of listening, speaking, reading and writing. Particularly important is more information on how students from different levels of age and different edu-

cational settings, which were not explored in this study, use language learning strategies in EFL setting should be obtained by conducting studies involving bigger samples.

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Appendix 1: Language Learning Strategies Questionnaire (LLSQ)

Directions

You will find some statements about learning English. On the separate worksheet, write the response (1, 2, 3, 4, or 5) that tells HOW TRUE OF YOU THE STATEMENT IS.

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

Never or almost never true of me means that the statement is *very rarely* true of you.

Usually not true of me means that the statement is true *less than half the time.*

Somewhat true of me means that the statement is true of you *about half the time.*

Usually true of me means that the statement is true *more than half the time.*

Always or almost always true of me means that the statement is true of you *almost always.*

Answer in terms of *how well the statement describe you*. Do not answer how you think you *should* be, or what *other people* do. There are no right or wrong answers to these statements. Put your answers on the separate Worksheet. Work as quickly as you can without being careless. If you have any questions, let the instructor know immediately.

Example

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

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

If I see native speakers, I try to talk with them in English. _____

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

on the answer sheet.
1. Never or almost never true of me
2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost always true of me

In Speaking

1. I use rhymes to remember new English words.
2. I try to remember new English words by pronouncing them.
3. I speak a word or a sentence several times to remember it.
4. I try to learn a new pattern by making a sentence orally.
5. I try to translate Indonesian sentences into English sentences and produce them orally.
6. I try to remember what the English word equivalent to Indonesian word is.
7. I tape record the sentences I produce.
8. I mix Indonesian words and English words if I do not know the English words.
9. I put words into rules that I know in speaking.
10. Before I respond orally to questions, I write out the answers.
11. I try to correct my mistakes that I produce orally.
12. I try to speak with myself to improve my speaking.
13. I try to evaluate my utterances after speaking.
14. I notice my English mistakes, and use that information to help me do better.
15. I prepare a topic or grammatical rules in speaking practice.
16. I ask somebody to correct me when I talk.
17. I practice speaking with my friends or my teachers.
18. I practice English with native speakers.
19. I ask questions in English.
20. If I cannot think during a conversation in English, I use gestures.
    If you have another strategy in speaking, please specify
21. _____

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

In Listening

1. I try to guess what somebody is saying by using grammatical rules.
2. I learn English by watching English TV programs.
3. I learn English by listening to English songs or other listening scripts.
4. I try to understand what somebody is saying by translating into Indonesian.
5. I draw an image or picture of the word in order to remember the word.
6. I connect the pronunciation of the word with the Indonesian word which has a similar sound.
7. I concentrate on the grammar rather than on the communication.
8. I try to understand the idea by referring to previous experiences I have had.
9. I try to guess by using a word (s) that is familiar to me.
10. In Listening, I take notes to remember ideas.
11. I try to understand every individual word to understand the passage
12. I listen to what I say to practice my listening skill.
13. Before practicing my listening skill, I prepare a topic, pronunciation or grammatical rules which give me the greatest trouble.
14. I try to remember a sentence(s) spoken face-to-face or on cassettes and analyze them by myself.
15. After a listening practice, I check and recheck my understanding.
16. I correct the mistakes that I produce orally.
17. I try to be aware of which sounds give the greatest trouble. In this way I can pay special attention to them while I listen and practice.
18. If I cannot understand what somebody is saying, I ask him/her to slow down or say it again.
19. Listening to what somebody is saying improves my listening skill.
20. In a group discussion, my listening skill is improved.
    If you have another strategy in listening, please specify
21. _____

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

In Reading

1. To understand unfamiliar English words while I am reading, I guess from available clues.
2. I learn English by reading English books or magazines.
3. I connect the spellings of English words with similar Indonesian words to understand the meanings.
4. I try to understand sentences by analyzing their patterns.
5. I try to translate word for word.
6. I try to understand the passage by using my general knowledge and experience.
7. I use the key words to understand the whole ideas.
8. I read the passage aloud.
9. I take notes to remember the ideas.
10. While I read a text, I try to anticipate the story line.
11. I read a text more for ideas than words.
12. I correct my mistakes by rereading the text.
13. I choose a topic or certain materials for my practice.
14. I check and recheck my understanding after reading a passage.
15. If I cannot understand a reading passage, I try to analyze what difficulty I actually have.
16. In reading, I pick out key words and repeat them to myself.
17. I try to be aware of which words or grammar rules give me the greatest trouble. In this way I can pay special attention to them while I read and practice.
18. I discuss reading passages with my friends.
19. If I do not understand the content of a reading passage, I ask my friends or my teachers for help.
20. I improve my reading skill by reading letters from my friends.
If you have another strategy in reading, please specify
21. _____

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

In Writing

1. If I do not know how to express my ideas in English while writing, I keep writing using certain rules that I know.
2. I write what I am thinking about.
3. I keep a diary.
4. I try to remember the meanings of words or the patterns by writing them
5. I write sentences to apply certain rules.
6. I try to translate word for word.
7. I mix Indonesian words and English words in writing.
8. I write the main ideas first as a guideline.
9. I use Indonesian words if I do not know the English words.
10. I use Indonesian patterns to keep writing in English.
11. I consult a dictionary to find out the meanings of words.
12. I write out new material over and over.
13. I try to memorize the meanings of words.
14. I rewrite my composition by correcting the mistakes that I notice.
15. I choose a topic to improve my writing skill.
16. I read my writing and correct the mistakes.
17. I try to be aware of which words or grammar rules give the greatest trouble, this way I can pay special attention to them while I write and practice.
18. I write a message to my friends in English for practice.
19. I write letters in English to my friends.
20. I ask my friends or my teachers to correct my writing.
If you have another strategy in writing, please specify
21 _____

Language Learning Strategy Questionnaire Worksheet

Name:

Class:

Example for practice: _____

In Speaking	In Listening	In Reading	In Writing
1. _____	1. _____	1. _____	1. _____
2. _____	2. _____	2. _____	2. _____
3. _____	3. _____	3. _____	3. _____
4. _____	4. _____	4. _____	4. _____
5. _____	5. _____	5. _____	5. _____
6. _____	6. _____	6. _____	6. _____
7. _____	7. _____	7. _____	7. _____
8. _____	8. _____	8. _____	8. _____
9. _____	9. _____	9. _____	9. _____
10. _____	10. _____	10. _____	10. _____
11. _____	11. _____	11. _____	11. _____
12. _____	12. _____	12. _____	12. _____
13. _____	13. _____	13. _____	13. _____
14. _____	14. _____	14. _____	14. _____
15. _____	15. _____	15. _____	15. _____
16. _____	16. _____	16. _____	16. _____
17. _____	17. _____	17. _____	17. _____
18. _____	18. _____	18. _____	18. _____
19. _____	19. _____	19. _____	19. _____
20. _____	20. _____	20. _____	20. _____
21. _____	21. _____	21. _____	21. _____

Appendix 2: Correlation Analysis among Skill-Based Strategies

Correlations

		listening strategies	speaking strategies	reading strategies	writing strategies
Pearson Correlation	listening strategies	1.000	.617**	.611**	.598**
	speaking strategies	.617**	1.000	.614**	.472**
	reading strategies	.611**	.614**	1.000	.647**
	writing strategies	.598**	.472**	.647**	1.000
Sig. (2-tailed)	listening strategies		.000	.000	.000
	speaking strategies	.000		.000	.000
	reading strategies	.000	.000		.000
	writing strategies	.000	.000	.000	
N	listening strategies	79	79	79	79
	speaking strategies	79	79	79	79
	reading strategies	79	79	79	79
	writing strategies	79	79	79	79

**. Correlation is significant at the 0.01 level (2-tailed).