# Exploring the Relationship between Learning Styles and Strategies for Secondary School Students in Thailand

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The study explores the meaning of learning styles and strategies and attempts to find a relationship between the two in the context of English language learning. The research is conducted in Thailand with 22 grade six students and it examines some of the definitions and characteristics of learning strategies and learning styles as described by scholars in the field of SLA. The results gathered using qualitative and quantitative data, show that that the majority of the students are visual style learners and multi-modal learners. Based on the data collected, there is no concrete relationship between learning style and the use of learning strategies. Even so, the topic leaves many areas open for exploration, in particular, the learner's metacognitive awareness of learning style and conscious learning strategy use and how this may improve his second language acquisition. The research also sheds a light on the learning strategies used by secondary school students in their L2 classroom as described by data collected through interviews.

## **Background and Rationale**

Finding the meaning of learning styles and strategies as well as the relationship between the two constructs, represents a great part of SLA research. Although there is not much conclusive, compelling research on the relationship between learning styles and learning strategies, there has been extensive research conducted about the importance of learning strategies in SLA. We can also find scholarly writing that discusses the theory of learning styles and how they impact the learning and acquisition of a second language. I will discuss the two areas: strategies and styles, separately and then explore their connection as it has been presented in current literature in the field of TESOL.

### **Learning Strategies**

In order to begin a discussion about learning strategies, we must first describe them. What is a learning strategy? As Ellis (2004) points out, there is no widely accepted definition for learning strategies (p. 558). Although learning strategies can be defined in many ways as pertinent to each writer's school of thought, there are some definitions that are worth mentioning and exploring in relation to this study. A learning strategy is defined as a "mental or behavioral activity related to some specific stage in the overall process of language acquisition or language use" (Ellis, 2004, p. 529) but also looks at learning strategies as "an attempt to develop linguistic and sociolinguistic competence in the target language" (2004, p. 530). He describes the way in which theorists in the field see them as conscious and intentional processes while others qualify them as subconscious processes (p. 531). This tension in the definitions of learning strategies can be observed by comparing Ellis' definition to Selinger's (1984) description of strategies as " basic abstract categories of processing by which information perceived in the outside world is organized and categorized into cognitive structures as part of a conceptual network "(p.4). Here, Selinger does not see strategies as conscious choices but as processing categories that are part of a cognitive function. This definition is in Ellis' use the contrast to of 'attempt' (2004, p.530) that offers awareness and intention on the part of the learner. Similar to the contrast between conscious and unconscious choices, Ellis also mentions the difference being made between the term "tactic" and the term strategy and he says that what may start out as a conscious "tactic", can evolve into a subconscious strategy (2004, p. 532). Some strategies are behavioral and directly observable while others are mental and not observable. Perhaps one singular definition of learning strategies would not have offered such a thorough description of what they are, by examining the discrepancies between these descriptions, we gain a broader understanding about the meaning and function of learning strategies.

Previous studies and theories also suggest that there are many factors that can influence a learner's choice of strategies. Individual learner differences are a good example of such factors. More specifically, difference in beliefs, affective states, and

previous learning experience all determine the learner's choice of strategies (Ellis, 2004, p. 529). These, in turn, influence the rate of acquisition and ultimate level of achievement for the students in a second language.

Ellis adds that strategy use varies considerably based on task and individual learner preferences i.e. learning styles (2004, p. 533). Oxford and Nyikos (1989) state that"the degree of expressed motivation was the single most powerful influence on the choice of language learning strategies" (p. 294) and they also add that the type of strategy the learners use is dependent on learning setting and environment. In conclusion, there are many factors that can influence the choice of learning strategies. While learning styles is mentioned among the factors that influence learning strategy choice, it is by no means agreed upon among scholars that learning styles alone have a strong influence on choice of learning strategies.

Cook (2008) concludes our exploration of learning strategies by splitting them into categories and ranking the most often used category of learning strategies as reported by ESL students. According to Cook, the three types of learning strategies are metacognitive strategies, cognitive strategies, and social strategies. Metacognitive strategies are the ones that help students plan, think about their learning, and monitor their speaking and writing as well as monitoring their own progress, they are used about 30% of the time by learners. Cognitive strategies are the majority of strategies used (53%) and they represent a "conscious way of tackling learning" (Cook, 2008, p. 115); they involve note-taking, using resources, and relating newly encountered information to previous

schema. The last category of strategies mentioned by Cook is that of social learning where students learn by interacting with others, doing peer work and asking their teachers and instructors for help. This further breaking down of learning strategies gives the reader a better understanding of the many aspects to consider when it comes to the study of learning strategies.

# **Learning Styles**

Turning our attention to learning styles, we begin with Gass and Selinker's (2008) definition:"preferences that an individual has of obtaining, processing, and retaining information" and "how individuals approach the task of learning" (p.432). Unlike learning strategies, learning styles are highly interrelated to personality. Personality research in SLA discusses many aspects of the learner such as extroversion/introversion (there isn't any compelling evidence yet as to which of these two may be better for SLA), risk taking, which can increase success in second language learning or make the learner more likely to participate in social settings, field dependent/independent learners (G&S, 2008, p. 433). Thus we can look at learning styles as preferences that are influenced by out personality and that, like our personality traits are unlikely to change from task to task.

Fleming and Miles (1992) define four sensory ways of learning: visual, auditory, read-write, and kinesthetic. According to Fleming and Miles, visual learners prefer the use of diagrams and symbols like graphs, flow charts, models, etc. Read-write learners prefer printed words and texts, lists, textbooks, notes, and worksheets. Auditory learners like information they can hear, better and enjoy discussions, lectures, and tutorials

when they learn new information.. Kinesthetic learners prefer real practices and experiences, field trips, case studies, real-life examples, role-plays, to help them learn and understand new concepts. However, Gass and Selinker (2008), state that the most successful learners use a variety of different learning styles in acquiring a second language (p. 437). Knowledge of these styles is often used in the classroom by teachers who do their best to instruction adapt and teaching accommodate differences in learning preferences and learning styles of their students (Hedayati, 2015, p. 345).

# Learning Styles in Relation to Learning Strategies

In the realm of SLA, we are interested in discussing learning strategies used by learners and what may influence them because we start at the premise that strategies improve and speed up language acquisition. Dörnyei (2010) is discussing this is very idea when he says that "learner variables modified and personalized the overall trajectory of the language acquisition processes accounting for [...] how proactively (learning strategies) and in what way (learning styles) the learner engaged in the learning process" (Dörnyei, 2010, p. 252). Here we can draw a distinct parallel between the different functions that learning styles and strategies are believed to play in the acquisition of language. However, Macaro (2010) disagrees with the idea and claims that there is insufficient evidence to prove that strategy use leads to success (2010, p. 270)

In her study, Li Jie (2006) states that strategies are chosen based on personality related factors and linked directly to learning style. She draws a different distinction between the concepts of style and strategy. Li Jie believes that differentiation "should be made in terms of the level of intentionality, awareness and stability" (2006, p. 68). Styles are unconscious learner traits, unintentional, and stable throughout long periods of time while strategies are specific behaviors selected by the aware learner and they are subject to change from one task to another.

For research purposes, Li Jie used the MBTI-G (Myers-Briggs Type Indicator form G) test for learning styles and the Strategy Inventory for Language (SILL) test for types of strategies that learners use (2006, p. 69). She concludes that learner awareness would develop the students' flexibility to cope with achieve learner different contexts and autonomy, not having to depend instructors. Bhagat (2015) also agrees that "awareness of learning styles can create a better learning environment by enabling students to use appropriate strategies" (2015, S59). Bhagat implies a strict correlation between learning styles and strategies

The study investigates the relationship between learning styles and learning strategies of 22 participants. The participants are students in grade 6 who study in an immersive English program at a government school in Thailand. They are all of the same age, between 12 and 13 years old and of similar English mastery levels. The students have all also been in the same class together since kindergarten and have had the same teachers throughout their formative years. Although individual differences are present no matter how homogenous the group of participants may be, the similarities in their educational background leave less room for although he does not attempt to explore or prove its truth.

Before conducting a study on the topic, one must decide on clear research questions as well as effective data collection. Ellis suggests that multiple data collection procedures are the most successful in this context but that learners vary greatly in their ability to report and describe their strategies (2004, p.534). Because much of the research relies on learner self-reports and retrospective reporting, the learners' ability to self-report can create doubts about how reliable the research is (2004, p.559).

The study specifically addresses the following questions:

- (1) What are the learning styles of L2 secondary school students in a small sample group?
- (2)Is there a relationship between learning styles (Visual, Auditory, Kinesthetic) and the self-reported learning strategies that the learners use?

#### Method

factors such as different backgrounds, knowledge, mastery, or culture to interfere with the study.

#### **Instruments**

The instruments that were used to collect that data are a 16 question-learning styles test which recorded the quantitative data as well as a questionnaire and field notes from interviews which recorded the qualitative data.

Face to face interviews about learning strategies they use in the English classroom, learning strategies they dislike, and what they think about their learning styles test results were conducted with 9 students of the 22

students based their questionnaire on responses and how responsive the students were to the researcher's questions. The instruments, both quantitative as well as qualitative were simplified versions of MBTI-G (Myers-Briggs Type Indicator form G) test for learning styles and the Strategy Inventory for Language (SILL) as mentioned in Li Jie's study (2006, p. 69). This was done for the purpose of simplicity and ease of English language comprehension on the part of the participants. Also, because the students are still young and not very mature, the simple version of the VARK (Visual, Auditory, Reading-Writing, and Kinesthetic) narrowed down to just three main styles (V, A, K) as the Reading-Writing style sometimes falls under the umbrella of visual learning. This better suited the learners' attention span and ability to answer the best they could.

#### **Data collection**

# To address the first research question, according to the learning styles test (Figure 1) the findings are as follows: 45% of the students are visual learners 23% kinesthetic, 18% audio-visual, 9% auditory, and 5% visual-kinesthetic learners. Although these findings are not new in the field of EFL, the findings help to describe and shape the

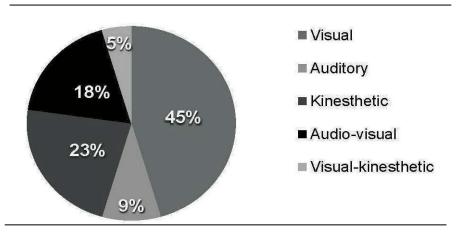
Figure 1. Learning styles

Students were first given the learning styles test without explanation of what learning styles are. After the test was collected, the students attended a brief lesson about the three different learning styles and students were given a list of common learning strategies (appendix 5).

Students were then given a list of 10 vocabulary words in English and asked to the spelling and meaning for homework. They were also to record the steps they took in learning the words and what specific strategies they employed. Students filled out a questionnaire the following week about their process in studying the new words. Based on their questionnaire responses, nine students were interviewed one-on-one. Interviews were recorded by taking notes. Data from the interviews was then organized into a table (appendix 4).

#### **Findings**

discussion about learning strategies in the context of learning styles. There was also some observable relation between the learning styles and learning strategies as derived from the questionnaires and the interviews (appendix 4) but not enough to establish a relationship.



#### Discussion

Most students in the school are required to sit quietly and read and write without much auditory or kinesthetic stimulation. This environment can shape the collective personality of the students and make them successful visual learners. However, in a similar study, Gilakjani (2012) found that out of over 100 Iranian EFL students, the preferred learning style was visual as well (2012, p.106). Although Gilankjani's (2012) study and the current study are two examples that show a majority of students displaying visual learning styles, further research would be necessary to conclude that most of the learners in EFL classes are visual learners.

The relationship between learning styles and learning strategies is not strong enough to prove that learning styles play the most important role in choosing learning strategies for this group of learners. The test used to classify the learners as Visual, Auditory, or Kinesthetic was a simplified version (for the purpose of clarity and easier language for the students) of the Meyers-Briggs personality test and thus could have given inaccurate results. The students' level of understanding of the test language could have also contributed to false results.

In assuming that the test results are accurate, we find that the students are not in any way restricted by their style in their strategy choice. Most students in the class talk about using similar strategies and this could be a direct result of the instructor's influence and the strategies they were taught to use in school. Although most students seem to have a visual learning style, they employ strategies that are not directly related to their particular style.

Finally, bringing the learners' attention to learning styles and strategies made them think about their learning process in a metacognitive way and monitor the strategies they used and the strategies they disliked. The students reporting of their strategies may not have been very reliable and a longitudinal study could more accurately describe the relationship between styles and strategies. The students' L2 may not have been advanced enough for them to discuss styles and strategies in-depth. Students knowledge of a variety of learning strategies seems to make the students more confident in their language learning process.

Pedagogical perspectives and implications for SLA

Some of the benefits of increasing learners' awareness of their own learning styles brings "higher interest and motivation in the learning process, increased student responsibility for their own learning, and greater classroom community" (Reid, 1999, p. 300). The most inspiring part of the study for me was watching the students try to make sense of the concept of learning styles and that some learning strategies can work better for different types of learners. The students were becoming in charge of their own learning while consciously trying to work out what works best for their learning style and how they feel about it. Much literature on this topic advises teachers to be aware of the different learning styles and to adjust their teaching accordingly. But if both teachers and students, even younger learners, can be aware of these aspects of language acquisition, they can work together to devise better strategies. Gilakjani says that learners of any subject will make greater progress if they can use their strong assets to master the learning material (2012, p. 106). Teachers can conduct similar research in their classroom to shape their

instruction based on the preferred learning style of the students. Teachers can use multimodal instruction and teach students a variety of learning strategies that allows them to explore many learning styles.

Although the study does not show a clear relationship between personality and learning strategy choice, I believe that this aspect can be explored in the classroom through interviews, conferences, and peer discussion. By finding out more about the students, the teacher can create a learner-centered classroom where the instruction and materials are catered to the specific needs and interests of the students. This can be especially beneficial for young teenage students who are just starting to learn who they are (personality is developing) and how to learn any subject, but especially ESL. Mastery and understanding of their own personality and which strategies work for them can make them more confident in their language learning. Teaching a wide variety of strategies can help the students become more versatile, efficient learners.

#### Conclusion

The study explores the meaning of learning styles and strategies from an academic point of view. There seems to be little research in the field on how learning styles affect learning strategy choice. Most scholars disagree when it comes to definition, motivation, or factors that influence strategy choice in second language learning. However, the field of SLA recognizes both learning styles and strategies as important factors to consider when teaching a second language. The current study was conducted to examine

whether a relationship could be established between learning styles and strategies in an EFL class. The results for this small group of students show that there is no significant association between one's learning styles, and their strategy use. However, the results suggest some interesting implications for EFL teaching and for the pedagogical use of learning strategies. This study merely raises questions on a topic that can be further explored in the classroom as well as in larger-scale research.

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Irina Stanescu is an ESL/EFL educator with experience in multi-disciplinary English curriculum development for primary and secondary school English programs. She has taught in a variety of environments in the United States, Nicaragua, Romania, and Thailand. Irina is passionate about teaching English through creative writing and expression, encouraging an open exchange of ideas in the classroom. Irina holds a B.A. in French Language and Literature from Bard College. She is also certified in TESOL instruction from the SIT Graduate institute in New York and is currently working on her Master's Degree thesis at Payap University in Thailand.

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## **Appendices**

**Appendix 1: Learning Styles Results Table** 

Student	Sex	Learning Style
1	F	Visual
2	M	Visual
3	М	Visual
4	F	Visual
5	M	Visual
6	М	Visual
7	F	Visual
8	М	Visual
9	F	Visual
10	F	Visual
11	М	Auditory
12	F	Auditory
13	F	Kinesthetic
14	F	Kinesthetic
15	F	Kinesthetic
16	F	Kinesthetic
17	F	Kinesthetic
18	M	Visual-Kinestethi
19	F	Audio-Visual
20	M	Audio-Visual
21	F	Audio-Visual
22	F	Audio-Visual

Appendix 1: Learning Styles Results Table

STUDENT	SEX	LEARNING STYLE
1	F	Visual
2	M	Visual
3	M	Visual
4	F	Visual
5	M	Visual
6	M	Visual
7	F	Visual
8	M	Visual
9	F	Visual
10	F	Visual
11	M	Auditory
12	F	Auditory
13	F	Kinesthetic
14	F	Kinesthetic
15	F	Kinesthetic
16	F	Kinesthetic
17	F	Kinesthetic
18	M	Visual-Kinestethic

Appendix 1: Learning Styles Results Table

STUDENT	SEX	LEARNING STYLE
19	F	Audio-Visual
20	M	Audio-Visual
21	F	Audio-Visual
22	F	Audio-Visual
Total: 22 students		

Appendix 3: The Learning Strategies associated with each Learning Style\*

Visual	Auditory	Kinesthetic
- take detailed notes	- acquire knowledge by reading aloud	- need to be active and take frequent breaks
- like to see what they are learning	- remember by verbalizing lessons to themselves or to others	- rely on what they can directly experience or perform
- use illustrations to aid their learning	- learn by listening and discussing, questioning, explaining	- learn through field trips or tasks that involve manipulating materials around them
- find quiet/passive surroundings ideal	- ask others to listen to their understanding of a topic	- learn by sensing and seeing examples
- use charts, graphs, maps	- use voice recorders to listen to their own personal voice notes	- learn by trial and error
- reconstruct images, charts, ideas in different ways		- use all the senses in the learning process
- redraw notes, words, diagrams from memory		-study by using many examples and context

Appendix 3: The Learning Strategies associated with each Learning Style\*

- replace words with	- write practice answers for a
symbols or acronyms	test, role play the exam situation

Appendix 4: Students' learning strategies for learning vocabulary -data from interviews

Stu dent	Learni ng style	Preferred learning strategies	Strategies they disliked/did not find useful	Comments/Observa tions students made about their learning style based on quiz answers
1	Visual	drawing mind maps to remember; using words in a sentence.	re-writing the words; saying the words out loud.	agrees with result because it has always been easy for her to learn visually and does not want to try out new strategies.
2	Kinest hetic	reading words out loud and talking to a study partner; writing synonyms.	drawing pictures or diagrams, re-writing words.	did not agree with being a kinesthetic learner, and thinks of herself as an auditory learner.

 $<sup>*</sup> adapted from $\underline{\text{http://people.usd.edu/~bwjames/tut/learning-style/}}$ and $\underline{\text{https://www.whitman.edu/academics/academic-resource-center/study-skills/learning-preferences-study-tips}}$ 

Appendix 4: Students' learning strategies for learning vocabulary -data from interviews

Stu dent	Learni ng style	Preferred learning strategies	Strategies they disliked/did not find useful	Comments/Observa tions students made about their learning style based on quiz answers
3	Audio- Visual	drawing diagrams and making mind maps; practice spelling and writing; redraw pictures, diagrams from memory.	reading out loud or studying with a friend.	Believes she is more a visual than auditory learner. Knowing her learning style made her more confident about using drawings and diagrams to recall vocabulary.
4	Audito ry	study and discuss homework with friend; ask others for help/clarification; use vocabulary word in a sentence.	hard work (writing a lot).	Agrees with result because she enjoys listening more than reading or speaking in English.
5	Kinest hetic	drawing diagrams and remembering pictures and words; before a health test draw pictures of organs to remember English words for them.	repeating the words out loud; acting out the words.	thought she was more of a visual learner; will try out learning strategies associated with kinesthetic learners like using real life examples to remember vocabulary.
6	Audio- Visual	listening; spending time in quiet places;speaking to a study partner.	re-writing the words many times; having a cluttered table.	Knowing that she is an audio-visual learner, she wants to use strategies from both styles to study in the future.

Appendix 4: Students' learning strategies for learning vocabulary -data from interviews

Stu dent	Learni ng style	Preferred learning strategies	Strategies they disliked/did not find useful	Comments/Observa tions students made about their learning style based on quiz answers
7	Visual	using examples from the book to help remember ideas; underlining important vocabulary in the book.	saying the words out loud; using movement to memorize the vocabulary.	Did not agree with being a visual learner, saw herself as an auditory learner.
8	Kinest hetic	drawing pictures and diagrams; writing synonyms; spelling a word many times; using many examples and learning the word in context.	using role play or games; spending a lot of time re- reading the words.	Saw herself as a visual learner not kinesthetic because she does not like to act things out or move a lot.
9	Visual	re-writing the word many times; spell it out loud by herself, spell it out loud with a partner; reading notes to her partner to check for understanding.	acting out the word or role play; copying the definition from the book.	she agrees that she is a visual learner although she thinks she is a combination of visual and auditory because she likes to say the words out loud and work out the meaning by talking to her friends.

# Appendix 5

<sup>\*</sup>List of learning strategies given to students in class discussion about learning strategies:

- Reconstruct images, charts, figures in different ways
- Redraw pages, diagrams, notes from memory
- Replace words with symbols, initials, acronyms
- Draw
- Use diagrams
- Recall pictures
- Turn your visuals into words
- Expand notes by talking with others and collecting notes from the textbook
- Put your summarized notes onto a recording to listen to
- Ask others to listen to your understanding of a topic
- Read summarized notes OUT LOUD
- Listen to your voice and write your ideas in your notebook
- Spend time in quiet places recalling ideas
- Speak your answers aloud when studying/answering practice test questions
- Put plenty of examples in your notes and summaries
- Use case studies
- Recall experiments, field trips, labs, etc.
- Write practice answers
- Move a lot while you memorize new vocabulary
- Role play the exam situation

\*adapted from: <a href="https://www.whitman.edu/academics/academic-resource-center/study-skills/learning-preferences-study-tips">https://www.whitman.edu/academics/academic-resource-center/study-skills/learning-preferences-study-tips</a>

Appendix 6

What's Your Learning Style?

For these questions, choose the first answer that comes to mind and circle a, b, or c.

#### Question 1

When you study for a test, would you rather

- a) read notes, read headings in a book, and look at diagrams and illustrations.
- b) have someone ask you questions, or repeat facts silently to yourself.
- c) write things out on index cards and make models or diagrams.

#### Question 2

Which of these do you do when you listen to music?

- a) daydream (see things that go with the music)
- b) hum along
- c) move with the music, tap your foot, etc.

#### Question 3

When you work at solving a problem do you

- a) make a list, organize the steps, and check them off as they are done
- b) make a few phone calls and talk to friends or experts
- c) make a model of the problem or walk through all the steps in your mind

#### Question 4

When you read for fun, do you prefer

- a) a travel book with a lot of pictures in it
- b) a mystery book with a lot of conversation in it
- c) a book where you answer questions and solve problems

#### Question 5

To learn how a computer works, would you rather

- a) watch a movie about it
- b) listen to someone explain it
- c) take the computer apart and try to figure it out for yourself

#### Question 6

You have just entered a science museum, what will you do first?

- a) look around and find a map showing the locations of the various exhibits
- b) talk to a museum guide and ask about exhibits
- c) go into the first exhibit that looks interesting, and read directions later

#### Question 7

What kind of restaurant would you rather not go to?

- a) one with the lights too bright
- b) one with the music too loud
- c) one with uncomfortable chairs

#### **Ouestion 8**

Would you rather go to

- a) an art class
- b) a music class
- c) an exercise class

#### Question 9

Which are you most likely to do when you are happy?

- a) grin
- b) shout with joy
  - c) jump for joy

#### Question 10

If you were at a party, what would you be most likely to remember the next day?

- a) the faces of the people there, but not the names
- b) the names but not the faces
- c) the things you did and said while you were there

#### Question 11

When you see the word "d - o - g", what do you do first?

- a) think of a picture of a particular dog
- b) say the word "dog" to yourself silently
- c) sense the feeling of being with a dog (petting it, running with it, etc.)

#### Question 12

When you tell a story, would you rather

- a) write it
- b) tell it out loud
  - c) act it out

#### Question 13

What is most distracting for you when you are trying to concentrate?

- a) visual distractions
- b) noises
- c) other sensations like, hunger, tight shoes, or worry

#### Question 14

What are you most likely to do when you are angry?

- a) scowl
- b) shout or "blow up"
- c) stomp off and slam doors

#### Question 15

When you aren't sure how to spell a word, which of these are you most likely to do?

- a) write it out to see if it looks right
- b) sound it out
- c) write it out to see if it feels right

#### Question 16

Which are you most likely to do when standing in a long line at the movies?

a) look at posters advertising other movies	
b) talk to the person next to you	
c) tap your foot or move around in some other way	
Source: <a href="http://people.usd.edu/~bwjames/tut/leg">http://people.usd.edu/~bwjames/tut/leg</a>	<u>arning-style/</u>
Appendix 7	
Name:	Questionnaire
Please answer the following questions about	t yourself as best as you can and provide as
many details as possible.	
1. How do you learn best? By drawing diagram reading your notes out loud and talking to a study premember ideas, moving a lot and acting out the learning of t	partner? Or by using life examples to help you
Give an example.	
2. If you had to study a vocabulary list of 10 ne steps you would take:	ew words, how would you do it? Write the
1.	
2.	
3.	
4.	

- 3. What study strategies DO NOT work for you? List a few examples.
- -
- -
- \_
- \_