CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

This study is an investigation into the difference in strategy use between proficient learners (PLs) and less proficient learners (LPLs) in understanding videos and the distracting and facilitating factors in videos. It is therefore necessary to explore learners' characteristics that affect comprehension. In this chapter the researcher reviews previous studies on learners' individual differences, learning strategies and then strategy use in listening and video comprehension. It also outlines studies on factors in listening text and videos which affect learners' comprehension.

2.1 Individual learner differences

A number of factors are responsible for the acquisition of a foreign or second language, e.g., learner's age, learning environment, teaching method, interference of learners' first language and attitude towards the target language culture (Ellis, 1994). Learner differences such as motivation, beliefs, anxiety and learning style, provide teachers with important information to support language learning. Based on the information gathered from individual learner differences such as learning styles and motivation, teachers will be able to design teaching activities.

Motivation is one of the most researched areas of individual differences. Many studies have been conducted to investigate various variables related to motivation and the co-relation of these variables, such as attitude, anxiety, achievement (Tremblay et al.,1995 ; MacIntyre et al.,1996 ;Gardner et al.,1997 ; Noels et al.,2000). This type of studies using questionnaires describes the stable aspect of motivation at a certain time. However, motivation can change from time to time according to the difficulty of task or learners' health condition and so on. Another type of study was conducted to examine

the changes of motivation over a long period with using journal writing (Peirce, 1995). Other studies put more emphasis on the classroom implication (Crookes and Schmidt, 1991; Oxford and Shearin, 1994; Dornyei, 1994). Researchers like Dornyei (2000) focused on aspect of time and educational context. He described different motivational factors in various time or educational contexts such as preactional phase (before study), actional phase (during study) and post-actional phase (after study). He also suggested some strategies by which teachers can generate and maintain learners' motivation and learners can find the ways to motivate themselves.

While Ellis (1994) stated that learners have their own beliefs as to how a language is learned best based on their previous experience of language learning, it is reasonable to assume that their beliefs have an effect on their approach to learning and choice of specific learning strategies. Yang (1999) studied the relationship between beliefs and learning strategy use by using a questionnaire developed from Beliefs About Language Learning Inventory (BALLI) and Strategy Inventory for Language Learning (SILL). Yang proposed two dimensions of language learning beliefs, i.e., metacognitive and motivational, and suggested that motivational dimensions played an important role in second language learning. Mori & Shimizu (2007) studied attitudes toward kanji and self-reported kanji learning strategies of Japanese as a foreign language learners. Tanaka & Ellis (2003) examined changes in beliefs about language learning and English proficiency of the university students in Japan who majored in English and participated in a 15-week study-abroad program. They found no significant relationship between changes in beliefs and gains or losses in proficiency and suggested that learners may change their beliefs but not their behaviors. In addition to belief, language anxiety was also investigated for its impact on language learning.

Language anxiety is defined as “apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient” (Gardner and MacIntyre, 1993, p.5). MacIntyre and Gardner (1989) divided nine anxiety scales into two groups, i.e., general anxiety and communicative anxiety. They suggested that high communicative anxiety lead to poor performance in French vocabulary learning. Tobias (1979, 1980, 1986 as cited in MacIntyre and Gardner, 1989) suggested a model of effect of anxiety on learning. An anxious person tends to engage in task-irrelevant thoughts and limited cognitive resources could not be allocated to task-relevant thoughts. Tobias also suggested that interference occurred at three levels, i.e. input, processing and output level. Apart from anxiety, researchers also investigated the impact of learning styles on language learning.

Ellis (1994) stated there are various types of learning styles (field dependent and field independent, visual, auditory, kinaesthetic and tactile) and preferred learning styles differ greatly from one individual to another. Brown (2000) suggested that individuals showed preference toward some styles, but they will choose different learning styles in different contexts. Ehrman & Leaver (2003) proposed the Ehrman-Leaver cognitive style construct which consisted of 10 scales such as field independent - field dependent, random - sequential and inductive - deductive. They reported two cases in which they diagnosed learners’ learning styles with the cognitive style construct and suggested language learning techniques for learners to expand the range of their learning activities.

Ellis (1994) stated that these individual differences, together with learners’ previous experience of language learning and situational factors such as task type and setting where the task is performed, have an effect on learners’ choice of learning strategies. Their choice of learning strategies in turn influences the rate of acquisition and level of achievement. In the next section the researcher will review studies on

learning strategies.

2.2 Learning strategies

In this section the researcher reviews the brief history of the birth of language learning strategy research and the role of learning strategies in language learning and teaching, and then provides the definition and the description of the taxonomy of learning strategies.

2.2.1 Learning strategies in language learning and teaching

Grenfell and Macaro (2007) described the beginning of the study of learning strategies as follows. Until 1970s language learning is considered as a kind of habit acquisition under the behaviorist theory. Therefore, practice of drilling and learning through repetition are widely used to learn the target language. But Hymes (1972 as cited in Grenfell & Macaro) provided a new idea that communicative competence included not only grammatical rules but also other rules such as language use in social context. Strategic competence such as holding conversation or repairing communication breakdown is also considered to be part of communicative competence.

Learning a foreign language is a hard task and learners of a foreign language use a lot of strategic behaviors to overcome difficulties they encounter during their study. The study of learning strategy started with the study of good learners. Researchers started to study the techniques and approaches used by successful learners. Grenfell and Macaro regarded Rubin's article 'What the "Good Language Learner" Can Teach Us' (1975) as the first article of language learner strategy research. In this research, Rubin tried to answer questions related to the techniques and approaches successful language learners use. Rubin divided strategies into two groups: processes which may contribute directly to learning and processes which may contribute indirectly to learning. The

former included 1) clarification and verification, 2) monitoring, 3) memorization 4) guessing/inductive inferencing 5) deductive reasoning and 6) practice, and the latter included 1) creating opportunities for practice and 2) production tasks related to communication.

Naiman et al. (1978/1996 as cited in Grenfell & Macaro) set out to investigate whether the techniques of good learners' can be taught to the poor learners. They claimed that the techniques and behaviors of good language learners can be taught to weaker learners. They proposed five major strategies that can be taught. These strategies are listed below:

1) Active task approach:

Good language learners (GLLs) were active in their response to learning situations.

2) Realization of language as a system:

GLLs referred to their own native language and made comparisons.

3) Realization of language as means of communication:

GLLs often concentrated on fluency rather than accuracy.

4) Management of affective demands:

GLLs realized that learning a language involves emotional responses.

5) Monitoring of L2 (second language) performance:

GLLs reviewed their L2 and made adjustments.

Naiman et al. (1978/1996 as cited in Grenfell & Macaro) also provided a list of techniques of second language learning in various skill areas such as pronunciation, grammar, vocabulary, listening, speaking, writing and reading.

As for the application of learning strategies in the language learning and teaching, Oxford (1990) describes how learning strategies change the role of learners and teachers. Learners sometimes like the passive role in which teachers tell them what

they have to learn. But learning strategies encourage learners to take more responsibility for their own learning. Learning strategies give learners ideas of activities which help them to learn the target language. Self-direction is important especially when learners use the target language outside of classroom where no teachers guide them. The role of teachers also changes from instructor, evaluator and controller to helper, guide and consultant. It changes from controlling classroom activities to identifying learners' learning strategies and helping learners to become more independent learners. This new role of teachers is more varied and more creative compared to the previous role as a controller.

2.2.2 Definition and taxonomy of learning strategies

A s*trategy* is defined as a procedures used in learning, thinking, etc, which serves as a way of reaching a goal. In language learning, learning strategies and communication strategies are those conscious and unconscious processes which language learners make use of in learning and using a language (Longman dictionary of Applied Linguistics).

Brown (2000, p.123) divided strategies into two types: learning strategies and communication strategies. Learning strategy is "related to input" - to processing, storage and retrieval, while communication strategy is "related to output" - expressing meaning and delivering messages. From this division, listening strategies are part of learning strategies and include techniques which students use to guess the meaning of listening text and to monitor whether they understand the listening text. Listening strategies are procedures used to solve problems which learners encounter in their listening activities. Oxford (1990, p.8) defined learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situation". O'Malley and Chamot (1990, p.1) defined learning

strategies as “special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information”. Their taxonomy consisted of three categories: 1) metacognitive strategies, 2) cognitive strategies, and 3) social and affective strategies. These strategies are defined as follows (O’Malley & Chamot, 1990, p.137-139).

Metacognitive strategies:

Thinking about the learning process, planning for learning, monitoring the learning task, and evaluating how well one has learned

Cognitive strategies:

Interacting with the material to be learned, manipulating the material mentally or physically, or applying a specific technique to a learning task

Social and affective strategies:

Interacting with another person to assist learning, or using effective control to assist a learning task

These three categories are further divided into subcategories and list of learner strategies are proposed based on their research.

Table 2.1
Taxonomy of learning strategies by O’Malley and Chamot

Metacognitive strategies	
1. Planning	Previewing the organizing concept or principle or 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.

Table 2.1, continued

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.
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.
Cognitive strategies	
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.
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	
1. Questioning	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 language task.

Table 2.1, continued

4. Self-reinforcement	Providing personal motivation by arranging rewards for oneself when a language learning activity has been successfully completed.

(from O'Malley & Chamot, 1990, p.137-139)

The list of strategies by O'Malley and Chamot contained a lot of strategies related to input of information such as elaboration, inferencing and note-taking.

Oxford (1990) provided a comprehensive taxonomy of strategy. Oxford's taxonomy contained not only strategies used in understanding and producing language but also strategies used in learning language. It divided learning strategies which are useful for learning into two types: direct strategies and indirect strategies. Direct strategies "require mental process of language" (Oxford, 1990, p.37) and are further divided into 1) memory strategy, 2) cognitive strategy and 3) compensation strategy. Memory strategy helps learners to store information in memory and retrieve it from memory. Cognitive strategy enables learners to understand and produce the target language. Compensation strategy is useful for learners to overcome knowledge limitation in completing tasks.

Indirect strategies "support and manage language learning without directly involving the target language" (Oxford, 1990, p.135) and are further divided into 1) metacognitive strategy, 2) affective strategy and 3) social strategy. Metacognitive strategy helps learners to organizing learning process such as setting goals, planning learning activities and evaluating learning. Affective strategy enables learners to control affective factors such as emotions, attitudes and motivation. Social strategy helps learners to cooperate with other people and to share feeling with others in order to involve other people between whom real communication occur. Each strategy is further divided into several sub-categories. Table 2.2 is Oxford's taxonomy of learning strategies.

Table 2.2
Oxford's taxonomy of learning strategies

Direct strategies	
1) 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
2) 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 and input and output	1. Taking notes
	2. Summarizing
	3. Highlighting
3) 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
Indirect strategies	
1) 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

Table 2.2, continued

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
2) 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
3) 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

(from Oxford, 1990, p.17)

Oxford's taxonomy of learning strategy is a comprehensive list and contains a wide range of strategies related to input and output of information, memorization, managing learning process.

Oxford provided a questionnaire called SILL (Strategy Inventory for Language Learning) in order to investigate strategies used by language learners. This taxonomy is often used in the studies that have a large number of subjects (Green & Oxford, 1995; Mochizuki, 1999).

There are a lot of studies on learning strategies which are used by learners in completing various tasks such as reading, writing and listening. As for strategy use in reading tasks, Erler and Finkbeiner (2007) conducted a comprehensive review about previous studies. They reported that researchers conducted a lot of studies to identify strategy types, to examine the relationship between strategy use and language proficiency, and to explore the effect of learners' first language on strategy use in second language reading task, and the effect of non-linguistic variables such as learners' cultural background and motivation.

Regarding strategy use in writing tasks, Manchon, de Larios & Murphy (2007) pointed out that in previous studies of writing strategy, researchers' attention was directed into three main areas, i.e, 1) strategies used by L2 learners such as use of first language in planning, writing and/or monitoring process, 2) variables that affect strategy use such as learners' proficiency level (internal variables), task-related and topic-related factors (external variables) and 3) influence of instruction on strategy use.

Concerning strategy use in listening tasks, Macaro, Graham & Vanderplank (2007) reported previous studies on listening strategies in their comprehensive review. Their report contained four major areas, i.e., 1) the way to elicit learners' use of listening strategy, 2) relationship between strategy use and other variables such as learners' proficiency level, gender and cultural background, 3) using prior knowledge and 4) training of strategy use.

As for strategy use in oral communication, Nakatani and Goh (2007) pointed out that a lot of researchers studied 1) communication strategies for negotiation and repairs, 2) use of metacognitive strategies to plan, monitor and evaluate communication strategy use, 3) compensation strategies to overcome lexical difficulties and 4) relationship between use of communication strategies and learner/task variables (learners' proficiency, task types).

Nyikos and Fan (2007) reviewed previous studies on vocabulary learning strategies. They reported that a lot of studies had been conducted in areas such as 1) factors that affect learners' vocabulary learning strategies (proficiency level, learning environment), 2) memorization strategy, 3) inferencing meaning of unknown words form context and 4) dictionary use. They also pointed out some area which further studies were necessary such as longitudinal study of individuals.

In this section the researcher reviewed studies on learning strategies. In the next section the focus is narrowed down to studies on the use of listening strategies.

2.3 Listening strategies

In this section, the researcher describes the definition and taxonomy of listening strategy, and then differences in strategy use between PLs and LPLs. There are a lot of studies on strategy use in listening comprehension tasks (Bacon, 1991, 1992; Vandergrift, 1996, 1997, 2003; Young, 1997). However, the number of studies on that of video comprehension tasks is limited (Seo, 2002, 2003; Umino, 1993). Therefore, the researcher first reviews the studies on strategies used by learners in listening comprehension tasks and then adds some examples of studies on video comprehension tasks.

2.3.1 Taxonomy of Listening Strategies

Oxford's taxonomy of strategies and that of O'Malley and Chamot's are extensively used in studies of second language and foreign language acquisition. The taxonomy of O'Malley and Chamot is often used in studies analyzing interview data and/or think aloud protocols. It is useful in detailed analysis of learners' thinking processes while they are conducting a task. Their taxonomy consisted of three

categories: 1) metacognitive strategies, 2) cognitive strategies, and 3) social and affective strategies. These three categories are further divided into subcategories as shown in Table 2.1 (refer to page16)

Many studies have been conducted by modifying this taxonomy. Bacon (1991, 1992) adapted the taxonomy to look into the gender differences in strategy use. She added strategies such as bottom-up processing and top-down processing for cognitive strategies. Vandergrift (1996, 1997) incorporated Oxford's affective strategies such as lowering anxiety, self-encouragement and taking emotional temperature into the taxonomy of O'Malley and Chamot, and studied strategies used by learners of different proficiency level in listening comprehension tasks. Young (1997) added some metacognitive strategies such as feedback and uptaking to the taxonomy of O'Malley and Chamot, and studied serial ordering of listening comprehension strategies. Seo (2002, 2003) added some strategies such as explaining visual element and responding/evaluating text information and modified the taxonomy of O'Malley and Chamot to study strategy use in understanding a video. Among these studies Vandergrift provided the most comprehensive taxonomy.

Vandergrift (1996, 1997) developed his taxonomy from that of O'Malley and Chamot (1990) and that of Oxford (1990). Some of the Vandergrift's categories were separated into more detailed subcategories; for example, inferencing was divided into five subcategories based on sources used by learners to infer meaning, and elaboration was divided into six based on sources used to understand content. He also incorporated Oxford's affective strategies such as lowering anxiety, self-encouragement and taking emotional temperature into his taxonomy.

Table 2.3
Listening Comprehension Strategies and their Definitions by Vandergrift

Metacognitive Strategies	
1. Planning	Developing an awareness of what needs to be done
1a. Advance organization	Clarifying the objectives
1b. Directed attention	Maintaining attention while listening
1c. Selective attention	Attend to specific aspects of language input or situational details
1d. Self-management	Understanding conditions that helps one successfully accomplish listening tasks
2. Monitoring	Checking one's comprehension or performance
2a. Comprehension monitoring	Checking, verifying or correcting one's understanding
2b. Auditory monitoring	Using one's "ear" for the language to make decisions
2c. Double-check monitoring	Checking, verifying or correcting one's understanding during 2nd time through oral text
3. Evaluation	Checking outcomes of listening comprehension against an initial measure
3a. Performance evaluation	Judging one's overall execution of the task
3b. Strategy evaluation	Judging one's strategy use
4. Problem identification	Identifying an aspect of the task that hinders its successful completion
Cognitive Strategies	
1. Inferencing	Using information within the text to guess unfamiliar items
1a. Linguistic inferencing	Using known words to guess the meaning
1b. Voice and paralinguistic inferencing	Using tone of voice to guess the meaning
1c. Kinesic inferencing	Using facial expressions, body language, and hand movement to guess the meaning
1d. Extralinguistic inferencing	Using background sounds and relationships between speakers to guess the meaning
1e. Between parts inferencing	Using information beyond the local sentential level to guess the meaning
2. Elaboration	Using prior knowledge from outside the text or conversational context
2a. Personal elaboration	Referring to prior personal experience
2b. World elaboration	Using common sense
2c. Academic elaboration	Using knowledge gained in academic sitations
2d. Questioning elaboration	Using a combination of questions and world knowledge to brainstorm logical possibilities
2e. Creative elaboration	Making up a story line
2f. Imagery	Using mental or actual pictures or visuals to represent the information
3. Summarization	Making a mental or written summary
4. Translation	Rendering ideas from one language to another
5. Transfer	Using knowledge of one language to facilitate listening in another

Table 2.3, continued

6. Repetition	Repeating a chunk of language
7. Resourcing	Using dictionaries, textbooks etc
8. Grouping	Recalling information based on grouping according to common attributes
9. Note-taking	Writing down key word and concepts
10. Deduction/induction	Consciously applying learned or self-developed rules to understand
11. Substitution	Selecting revised plans, or different words or phrases
Socioaffective Strategies	
1. Questioning for clarification	Asking for explanation, verification
2. Cooperation	Working together with someone
3. Lowering anxiety	Reducing anxiety
4. Self-encouragement	Providing personal motivation
5. Taking emotional temperature	Becoming aware of one's emotion while listening

(from Vandergrift, 1997, p.392-395)

The present study used this taxonomy as a base and made some modification which will be mentioned in the next chapter (Chapter 3). In this study, the researcher studied not the listening task but the viewing task in watching videos. So the term comprehension strategy and not listening strategy is used to indicate strategy for watching videos and understanding content from an audio and visual input.

2.3.2 Strategy Use between Proficient Learners and Less Proficient Learners

In this section the researcher discusses studies on strategies used by learners of different proficiency levels. In this field the studies on video comprehension are limited (Seo, 2002, 2003; Umino, 1993) though there are extensive studies on listening comprehension (Bacon, 1991, 1992; Chamot & Kupper, 1989; O'Malley & Chamot, 1990; Vandergrift, 1996, 1997, 2003; Young, 1997).

Chamot and Kupper (1989) reported that higher level students used more strategies than beginner students. Furthermore, they pointed out that successful students used various types of strategies appropriately and with purpose, while less efficient students used strategies inappropriately. Young's results (1997) also indicated that less

successful students used a narrower range of strategies.

Metacognitive strategy was defined by O'Malley and Chamot as "Thinking about the learning process, planning for learning, monitoring the learning task, and evaluating how well one has learned" and cognitive strategy as "Interacting with the material to be learned, manipulating the material mentally or physically, or applying a specific technique to a learning task". That is, metacognitive strategy is to plan and/or evaluate one's own activity while conducting tasks, and cognitive strategy is to manipulate language in order to understand text or produce utterances.

As for the frequency of metacognitive strategy and cognitive strategy, Chamot and Kupper (1989) conducted a descriptive study in which they carried out small group interview with 67 high school students learning Spanish and asked about any special tricks or techniques the students applied to foreign language tasks. Their results indicated that among students of all levels, cognitive strategies were the most frequently used strategies. Vandergrift (1996) interviewed 36 students learning French at 4 different course levels on particular techniques in the listening task. He concluded that cognitive strategies were the most prominent strategies for all course levels. The same tendency was observed in Seo's study (2002) on video watching by 5 proficient and 5 less proficient Australian learners of Japanese language and native speaker of Japanese.

As for the use of metacognitive strategy, Vandergrift (1997) examined think aloud protocols in the listening task of 10 successful and 11 unsuccessful listeners learning French. He suggested that successful learners used metacognitive strategies such as comprehension monitor and problem identification more frequently than by unsuccessful learners. He also pointed out that the frequency of metacognitive strategies increased as learners' proficiency level increased. Vandergrift (1996) indicated the same result. On the other hand, Seo (2002) showed a contradictory result that her learners used more cognitive strategies and less metacognitive strategies as they developed

greater language proficiency.

As for cognitive strategies, Chamot and Kupper (1989) pointed out that beginner students used repetition, translation and transfer, while intermediate and advanced level students used inferencing though they still used the strategies that beginner learners used. Successful students used more appropriate strategies in greater variety, while less effective students used fewer types of strategies and they used these inappropriately. Vandergrift (1997) reported that both novice listeners and intermediate listeners used the same three most frequent strategies, i.e., elaboration, summarization, inferencing as cognitive strategies. However, the fourth strategy differs. Novice listeners used translation (cognitive strategy) and intermediate listeners used comprehension monitoring (metacognitive strategy) as the fourth frequent strategy. Vandergrift (2003) also suggested that more skilled learners used both top-down and bottom-up strategies flexibly according to the purpose of listening and used systematic cycle of predicting and monitoring. But less skilled learners used less comprehension monitoring (metacognitive strategy) and more translation (cognitive strategy). The result also indicated that elaboration and inferencing of less skilled learners were more superficial and their summarization was disjointed.

The above studies focused on listening comprehension, but Seo's study (2003) is one of the studies that looked into video comprehension. Seo examined think aloud protocols of 12 Australian learners of Japanese language in the watching of two news programs and two dramas. She concluded that the significant difference between the proficient group and the less proficient group is that the proficient group identified key terms and then used other strategies such as elaboration, inferencing and visualizing, while less proficient learners didn't make any connections between what they understood after identifying key terms. Proficient learners related what they comprehended to previous information, used visuals to confirm their comprehension or

hypotheses, while less proficient learners had difficulties in decoding words and problems in remembering.

In this section the researcher reviewed studies on the use of listening strategies. In the next section the researcher reviews studies which dealt with factors such as distracting elements and facilitating elements in the understanding of videos.

2.4 Factors that Affect Understanding of Videos

In this section, the researcher reviews studies on distracting and facilitating factors in listening comprehension. Rubin's study (1994) carried out an extensive review of the past studies on factors which affect listening comprehension. She identified the five factors which affect listening comprehension in second language: 1) text characteristics, 2) interlocutor characteristics, 3) task characteristics, 4) listener characteristics, and 5) process characteristics. Each characteristic type is further divided into several elements. The researcher reviewed text characteristics in order to examine distracting and facilitating factors in videos.

Rubin (1994) divided text characteristics into four categories: 1) acoustic-temporal variables which consist of speech rate, hesitation and pause phenomena, 2) acoustic-other variables which comprise level perception, phonological modification such as assimilation and mutation, stress and rhythmic patterning perception and L1/L2 differences, 3) morphological syntactic modifications which comprise syntactic modifications, redundancy, morphological complexity, word order and discourse markers, 4) text types which consist of visual support for texts. The first two factors are related to the audio factor, the third one is related to vocabulary and grammatical rules and the fourth is related to the visual factor. The following section will discuss distracting factors based on these three factors: audio factor, vocabulary and grammatical rules and visual factors.

2.4.1 Distracting factors in understanding video

In this section distracting factors in the understanding of videos are reviewed in the following order: 1) audio factors, 2) vocabulary and 3) visual factors. In the following section the researcher discusses three distracting audio factors related to the understanding of videos. They are fast speech rate, unclear pronunciation and long utterance.

2.4.1.1 Fast speech rate, unclear pronunciation and long utterance

In a listening comprehension task, listeners have to listen to the incoming input at the speed that the speaker talks. Listeners cannot choose the preferred speed. Fast speech rate is a distracting factor which is often discussed in second and foreign language learning. Foulke and Sticht (1969) and Sticht (1971) found from an extensive review of previous studies that listening comprehension of a listener declines gradually until the speech rate reaches a threshold level after which comprehension declines steeply (as cited in Back 2001, p.40). Chen (2005) conducted unstructured interviews with 64 EFL learners in a junior college in Taiwan and examined their working journals in order to study the barriers in acquiring listening strategies. She reported on several learning barriers such as affective statuses and listening habits. For information processing capacities, she mentioned that the limited span of learner's memory or attention did not allow them to process the input.

Goh (1999) studied factors affecting learners' listening comprehension by collecting data from small group interview and diaries. She reported 20 factors under five categories, text, speaker, listener, task and environment. Speech rate is one of the factors under the category of text. She suggested that the sense of not being able to understand what they heard made them to think that fast speech rate prevented their

comprehension. In other words, listeners' perception of speech rate could be influenced by differences between what listeners expect to hear and what they really understand.

In listening comprehension, learners have to listen to and interpret a lot of unfamiliar sounds. Therefore, the utterance which contains phonological modification and unclear pronunciation seems to put extra burden on learner's listening and this, to a greater extent, affects the listening comprehension of the less proficient learners, as there are too many variables they have to interpret at any one time.

According to Buck (2001) phonological modification takes place based on very complex rules and the rules are different from one language to another. English has phonological modifications such as assimilation, elision and intrusion. English also has little words which show grammatical function such as articles and prepositions. They are usually pronounced in two ways; the strong form and the weak form. Phonological modification often takes place in fast speech and informal speech. The lack of knowledge about phonological modification causes learners difficulty in listening comprehension.

Roach (2001 as cited in Buck, 2001) pointed out that degree of phonological modification in English varies from one situation to another. Speakers use less modification in formal speech compared to informal speech and the important information is pronounced with more care compared to less important, casual information. It appears that phonological modification often takes place in animations and dramas in which characters speak in informal manner.

As for length of utterance, Chen (2005) pointed out that learners, when they listen to extended input, had difficulty in memorizing the information, especially the beginning part, and forgetting the input led to comprehension breakdown. She suggested that difficulty in memorizing is because learners' sensory register or/and short-term memory are limited in capacity for retaining input.

2.4.1.2 Vocabulary

Lack of vocabulary causes difficulty in foreign language in listening comprehension. Goh's results (1999) indicated that students considered vocabulary and prior knowledge to be the two most important factors in listening comprehension. Goh also pointed out that unfamiliar vocabulary caused learners to put a lot of attention on processing sounds and words. It is likely that the limited capacity of learners' working memory prevents them from processing and understanding information satisfactorily. Chen (2005) pointed out that limited vocabulary was a barrier to activating listening strategy for some learners and reported that learners themselves considered increasing their vocabulary to help their listening comprehension.

2.4.1.3 Visual factor

Visual factors help learners to understand the content of videos when they cannot understand audio input. There are a lot of studies about the effect of different types of subtitles (Danan, 1992; Markham et al., 2001). However, studies on the effect of visuals itself are limited (Baltove, 1994; Ginther, 2002; Gruba, 2007, 2008; Wanger, 2007). Studies which deal with the distracting factor of videos are even more limited (Gruba, 2007, 2008). Gruba (2007) studied the understanding of newscasts by 10 Australian learners of Japanese language. Using think aloud protocols, he analyzed visual elements that assist understanding and those which mislead learners. He listed four visual elements that could lead learners to misunderstanding: 1) unfamiliar images, 2) non-diegetic language elements such as head-lines and captions, which are added for explanation while editing, 3) lack of synchronization between visual and aural elements, and 4) non-sequential arrangement of temporal events.

2.4.2 Facilitating factors in understanding videos

Two facilitating factor types in understanding videos are reviewed in this section, i.e., audio factors and visual factors.

2.4.2.1 Audio factors

In listening comprehension, audio elements help learners to understand the content of the text. Seo (2003) examined think aloud protocols of 12 Australian learners of Japanese language while they watch drama and news program. She pointed out that learners used familiar music at the beginning of a news program to identify the text genre and tone of voice to guess the character's emotional state.

2.4.2.2 Visual factors

When learners cannot understand audio input in videos, they can rely on visual elements in videos. Gruba (2007) analyzed visual elements that assist understanding. He concluded that visual elements help learners to identify the genre of a newscast and the areas where the key information provided. Visual elements also enabled learners to recover what they could not understand from audio input and to confirm what they understood from audio input. As for visual linguistic elements, he pointed out that non-diegetic language elements, such as headlines and captions in newscasts, helped learners to understand, predict and verify the content when these elements were correctly decoded.

2.5 Summary

This chapter provided the basic theoretical underpinnings which will guide the analysis of the data collected in this study. Also relevant studies have been published thus far. Basic taxonomies of learning strategy were provided by Oxford (1990) and O'Malley and Chamot (1990). A lot of researchers used their taxonomy for their research. Vandergrift (1997) developed his taxonomy from that of Oxford, and O'Malley and Chamot, and conducted a lot of studies on listening strategies. Vandergrift examined strategy use in listening comprehension tasks, while Seo (2002) studied strategy use in video comprehension tasks.

There are very limited studies on visual elements in videos which distract and facilitate learners' comprehension of content of videos. Gruba (2007) studied the thinking processes of learners in watching newscasts and examined the distracting factors and facilitating factors in videos. In line with Gruba's research, this study attempts to investigate the cognitive processes of Japanese as a foreign language learners while watching videos and to detect factors that impact the process. The next chapter will delineate the methodology of this study.