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How Goal Orientations, Perceived Competence, and Strategy Training Affect College Students' Use of Self-Regulated Learning Strategies and Achievement in Learning Foreign Languages

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HOW GOAL ORIENTATIONS, PERCEIVED COMPETENCE, AND STRATEGY TRAINING AFFECT COLLEGE STUDENTS' USE OF SELF-REGULATED LEARNING STRATEGIES AND ACHIEVEMENT IN LEARNING FOREIGN LANGUAGES

BY

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…dedicated to my two little boys, Yili and Yi’en -- blessings from God.

I love you dearly.

May you grow up with wisdom.

Mama

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ABSTRACT

The purpose of this study was to examine how goal orientations, perceived competence, and strategy training affect college students’ use of self-regulated learning strategies and achievement in learning foreign languages. One hundred seventeen undergraduates participated in the study. The students came from 8 introductory Arabic, Chinese, German, and Japanese classes, with 2 classes from each language. Students were categorized as either having task-involved goal orientation or ego-involved goal orientation. A median split method was used to categorize students into either with high perceived competence or with low perceived competence. One of the two classes of the same foreign language was randomly selected to receive self-regulated language learning strategy training. Students’ use of self-regulated learning strategies was measured by a strategy inventory for foreign language learning. Students’ achievement was measured by course-related tests. The results showed that students with task-involved goal orientation scored significantly higher than students with ego-involved goal orientation on self-regulated strategy use, but there was no significant difference in achievement. No interaction effect was found with student ego-involved goal orientation and perceived competence. The results showed no significant difference between students who received training and those who did not. The reasons for these findings were discussed. Implications of the findings as related to foreign language instruction were discussed. Implications for further research that might yield significant findings were also discussed.
CHAPTER I

INTRODUCTION

Motivation has long been a concern in the context of second/foreign language (SL/FL) acquisition. Motivational research has shown that motivation affects a variety of aspects related to language learning (Ely, 1986; Gardner, et al, 1992). For example, it affects the use of SL/FL learning strategies - a major aspect of self-regulated learning, the effort that learners are willing to invest, their achievement in course-related assessments, the proficiency level they eventually achieve, and the likelihood of their continuing to develop competency in the target language (i.e. the SL/FL being learned) after they complete formal classroom study of the language (Ely, 1986; Gardner, et al, 1992; Noels, et al, 2000).

Theories employed in earlier motivational research in the SL/FL context prior to the 1990s have been primarily relied on Gardner’s Socio-Educational Model. This model focuses on individuals’ desire to integrate with the people who speak the target language and their attitudes towards them. The theory is based solely on social psychology, thus limiting its explanatory power (Crookes and Schmidt, 1991; Oxford and Shearin, 1994; Oxford, 1994). Some more recent motivational research incorporated theories of extrinsic and intrinsic motivation (Deci & Ryan, 1985) and investigated the effects of motivational factors on student achievement-related aspects in learning Chinese (Wen, 1997) and French (Keuneman & Sagona, 1992) as foreign languages.

The motivational theories employed in SL/FL research seem to be limited compared to what has been done outside the SL/FL context. Outside the SL/FL context, motivational research has extensively employed theories and concepts from general psychology, educational psychology and industrial psychology (Oxford, 1994). Here I will briefly introduce a few of these theories and relevant concepts involved in the study that I have conducted.

Goal theory is an example of these theories. Goal theory claims that different goal orientations of individuals activate different cognition (e.g. thoughts, beliefs), emotions, and behavioral patterns in achievement settings (Dweck, 1986). Social cognitive theory (Bandura, 1986) is another popular theory employed in the motivational research. Perceived competence, or self-efficacy, is a concept derived from social cognitive theory. Perceived competence refers to individuals’ judgments of their capabilities for a particular type of task (Bandura, 1986).

Research has shown that perceived competence influences achievement-related aspects such as the goals individuals set, and their perseverance in the face of difficulty and performance (A. J. Elliot & Church, 1997; Locke & Latham, 1990; Zimmerman & Martinez-Pons, 1986). Research has also indicated that goal orientations and perceived competence affect cognitive engagement (Meece, et al., 1988), self-regulatory activities (Miller, et al., 1993), task choice, task performance and persistence in times of difficulty (Elliot & Dweck, 1988). Goal theory (Dweck, 1986) predicted and laboratory research (Elliot & Dweck, 1988) has indicated that there is also an interaction effect of the goal orientations and perceived competence. However, the findings have been inconsistent (Harackiewicz, et al, 1997; Kaplan & Midgley, 1997).

Self-regulated learning is a concept frequently examined in the motivational research outside the context of SL/FL learning (Zimmerman, 1990; Zimmerman & Martinez-Pons, 1986;
The definition of self-regulated learning varies depending on from what theoretical perspective it is defined. For instance, from the perspective of behaviorism, it refers to forgoing existent behavior and acquiring new ones (Zimmerman, 2001). In the present study, this concept is adopted from the perspective of Social Cognitive Theory. It refers to a cyclical process that involves self-generated thoughts, feelings, and actions that are systematically directed towards achieving personal goals (Zimmerman, 1989).

The above definition indicates a close relationship between goals and self-regulation. Research has also shown that different goal orientations of individuals affect their use of cognitive strategies (McWhaw, & Abrami, 2001; Meece, et al., 1988; Miller, et al, 1993; Bouffard, 1995), a major aspect of self-regulated learnig. In SL/FL acquisition, similar concepts, such as self-accessed learning, self-instructed learning, self-directed learning, have been discussed (Oxford, 1989; 1996; Chamot, 1993). However, this concept has not been systematically examined and has only recently been brought up as an issue that merits empirical research (McDonough, 2001). On the other hand, although some descriptive studies have shown that successful language learners use a variety of self-regulated learning strategies (Oxford, 1990), it has not been examined whether training of strategy use affects self-regulated learning and achievement.

The present study intends to make contributions to the research on SL/FL learning by incorporating goal theory and the concept of perceived competence and self-regulated learning from social cognitive theory into empirical research. It also intends to investigate whether self-regulated strategy training will have an effect on student use of self-regulated learning strategies and achievement in learning a foreign language.

The following sections will briefly describe 1) the general context of the research problems investigated, 2) the specific issues related to the problems, 3) the research gaps identified, 4) the purposes of the study, and 5) the significance of the study.

I. General context of the research problems

Three major research problems were investigated in the study. First, the study investigated the effects of goal orientations and perceived competence on college students’ use of self-regulated learning strategies and achievement in learning a foreign language. The theoretical framework was based on goal orientations and social cognitive theory about perceived competence. Goal orientations refer to the reasons or purposes of why individuals choose to engage in an activity (Dweck, 1986). Perceived competence, also referred to as self-efficacy, refers to one’s belief in how well one might perform a certain type of task (Bandura, 1985).

Goal orientations have been contrasted as learning oriented versus performance oriented (Dweck, 1986; Dweck & Leggett, 1988), task-involved versus ego-involved (Nicholls, 1979, 1984), and mastery focused versus ability focused (Ames & Archer, 1988; Ames, 1992). The terms used by Nicholls seem to be most self-explanatory with regard to their implications. So I will use task-involved goal orientation (TGO) versus ego-involved goal orientation (EGO) in my discussion.
Goal theory claims that different goal orientations activate different cognition (e.g. thoughts, beliefs), emotions, and behavioral patterns of individuals in achievement settings (Dweck, 1986). Task-involved goal orientation is hypothesized to have more positive effects than ego-oriented goal orientation on student achievement behavior and task performance. It is hypothesized that there is an interaction effect between the two. However, research findings about this effect have been mixed (Harackiewicz, et al, 1997; Kaplan & Midgley, 1997).

The second research problem relates to the interaction effects of goal orientation and perceived competence. Regarding perceived competence, research outside the context of SL/FL has shown that it influences achievement-related aspects such as the goals individuals set, their perseverance in times of difficulty and failure, and their performance results (A. J. Elliot & Church, 1997; Locke & Latham, 1990; Zimmerman & Martinez-Pons, 1986). How might goal orientations and perceived competence affect language learners in the unique context of SL/FL acquisition? Is there an interaction between these two variables in the SL/FL context? Although the effects of goal orientations and perceived competence on individual achievement and achievement behavior have been extensively examined outside the SL/FL context and interaction effects between the two investigated, little empirical research has examined the effects of these variables in SL/FL learning.

Self-regulated learning is a frequently examined concept in the motivational research outside the SL/FL acquisition context (Zimmerman, 1990). Although past research has investigated how self-regulation is related to achievement-related aspects (Zimmerman & Martinez-Pons, 1986; Corno, 1986; Young, 1996), a literature review reveals that little research except one by Chamot (1993) has examined what internal resources within individuals activates self-regulated learning. Considering the long and complicated process for an adult to learn a new language and the many successful and failing individual cases (Gardner, & Lambert, 1959), intuitively we would think that motivation could be an important factor that may influence the learning process.

In deed, motivation has long been a concern in the SL/FL context. Motivational research in this context owns much to a Canadian psychologist, Robert C. Gardner and his associates. As previous indicated, motivational theories employed have primarily relied on Gardner’s Socio-Educational Model before 1990s. In early 1990s, a few researchers (Dornyei, 1990; Crookes and Schmidt, 1991; Oxford and Shearin, 1994; Oxford, 1994; Dornyei, 1994a; Dornyei, 1994b), while pointing out the limitation of Gardner’s Socio-Educational Model, recognized the additional explanatory power other motivational theories may offer to SL/FL acquisition research and the potential benefits of related research findings. Therefore, they called for a resurrection of motivational research incorporating theories from other field of psychology such as industrial psychology and educational psychology. Gardner and Tremblay (1994b) called this resurrection of interest a “motivational renaissance”. During this period of time, goals were mentioned as an important variable that might affect SL/FL learning (Oxford, 1994). However, I have not found any research in SL/FL learning using goal theory. More recent research has tested the theory of extrinsic and intrinsic motivation in foreign language learning (e.g. Wen, 1997).

The third problem investigated in the study is the effects of language learning strategy training on students’ use of self-regulated learning strategies and achievement. A number of studies have investigated the effects of language strategy training on individuals learning a second/foreign language and research has indicated that successful learners use a variety of self-regulated learning strategies (Oxford, 1990, 1993; O’Malley & Chamot, 1990; Chamot, 1993).
However most of the studies focus on examining training of specific strategy in a specific area (e.g. using contextualization to learn vocabulary). Little research except one conducted by Chamot (1993) has examined how self-regulated strategy training, which includes both global strategies (e.g. emotional management strategies) and specific learning strategies, affects students’ self-regulated strategy use and achievement.

In summary, I have just presented the research problems investigated in the study with a discussion of the general context of the problems, the theoretical framework of the study, and the concepts related to the research problems. I have also briefly indicated the research gaps. A more detailed discussion of the specific issues related to the research problems and how the research gaps have been identified follows.

II. Issues related to the research problems

Specific issues related to the research problems are goal orientations, perceived competence, self-regulated strategy training, self-regulated strategy use, and achievement. Goal theory is one of the motivational theories that seek to explain motivation in human behavior. The importance of goals as related to motivation is reflected in the definition of motivation, in which goals is the central construct. According to Heckhausen (1991), motivation refers to goal-oriented behavior. Goals function as an important psychological mechanism that directs individuals’ attention, energy, thoughts, and behavior (Dweck, 1988; Ames, 1992). Different goal orientations, therefore, is hypothesized to activate different cognition, metacognition, affect, and behavior (Dweck, 1986).

Goal theorists and researchers (Dweck, 1986; Nicholls, 1984; Ames, 1992) claim that individuals with task-involved (i.e. learning) goal orientation believe that competence can increase with efforts and strategy use. They focus on developing new skills through learning as well as seeing learning as an end by itself in terms of personal satisfaction (Ames & Archer, 1988). With ego-involved (i.e. performance) goal orientation, individuals are concerned with external judgment of their ability or self-worth (Covington, & Omelich, 1979). They try to demonstrate their ability by success with seemingly little efforts or avoid demonstrating low ability by not making efforts when they see the chance to succeed is slim.

Effects of perceived competence are another issue related to the research problems. Perceived competence, also referred to as self-efficacy, means one’s belief in how well one might perform at a specific learning situation (E. S. Elliott & Dweck, 1988; A. J. Elliot & Church, 1997). It is claimed that effects of goal orientation is mediated by perceived competence for individuals who are predominantly ego oriented and whose perceived competence is low (Dweck, 1988). Evidence from experimental research conducted in the laboratory provides support to these claims (Dweck & E. S. Elliott, 1983; Dweck & Leggett, 1988). However, there has also been inconsistent researching findings regarding both the effects of goal orientations and the interaction effect of goal orientations and perceived competence in affecting students’ cognition, affect, behavior and course-related performance. More recent research has found either contradictory evidence of moderating effects of perceived competence (Kaplan & Midgley, 1997) or inconsistent effects of goal orientations on achievement related aspects (Harackiewicz, et al, 1997).
Other issues related to the research problems are strategy training, use of self-regulated learning strategies, and achievement. Self-regulated learning strategies are self-initiated strategies used in the learning process (Zimmerman, 1989). This includes metacognitive strategies (e.g. planning, monitoring, evaluating), cognitive strategies (e.g. rehearsing), social strategies (e.g. help seeking), and other environmental strategies (e.g. restructuring the environment of learning) (Zimmerman & Martinez-Pons, 1986). Achievement in the present study is defined as the students’ performance in achievement tests.

In the above section, I have discussed the specific issues related to the research problems investigated. In summary, research has shown that goal orientations and perceived competence affect a variety of student achievement behavior and results, such as use of learning strategies and achievement (Newman, 1998; Roeser, et al, 1996; Schunk & Swartz, 1993; Schunk & Rice, 1991; Schunk, 1996). However, the research findings seem to be inconsistent regarding the effects of different goal orientations and the interaction effects of goal orientations and perceived competence. In the context of SL/FL, it is also important to investigate whether training of self-regulated strategy use will contribute to student self-regulated learning and achievement. I am now turning to a detailed discussion of the research gaps I have identified.

III. Identifying research gaps

As previously discussed, although much motivational research incorporating theories from general psychology, educational psychology and industrial psychology has been done in various disciplines, theories employed in the context of SL/FL acquisition are limited to Gardner’s (1985) socio-educational model and the theory of extrinsic/intrinsic motivation. Unlike goal theories and social cognitive theory on perceived competence that focuses on individuals as active agent of learning, the socio-educational model focuses on the social factors that influence individual learning in the context of the acquisition of English as a second language. This leaves many questions unanswered. For instance, how does a learner manage to succeed in mastering a foreign language in a context deprived of social and linguistic milieu conducive to learning the target language? It seems that other motivational components, such as goals and perceived competence, might as well exert significant influence in foreign language learning (Oxford, 1994). Motivational research using extrinsic/intrinsic theory has also been sparse and has not examined how it affects students’ use of self-regulated learning strategies. Research incorporating theories from other disciplines, such as educational psychology, still seems to be at its embryo stage in the SL/FL field.

Considering the research that has been conducted outside the SL/FL context regarding the effects of goal orientation and perceived competence on a variety of factors (e.g. intrinsic interest, task choice and persistence), it seems reasonable to hypothesize that goal orientations and perceived competence might also play important roles in the process of SL/FL learning. In fact, motivation seems to be even more pertinent and significant given the unique features of this context. This context is unique in that the classroom instructions and training is limited, there is general high learning anxiety in the classroom (MasIntyre & Gardner, 1994b), the learning process is usually slow and long, and students largely depend on themselves to learn outside the classroom. It seems desirable to expand the motivational theories in order to increase the
explanatory power of SL/FL theories of why learners fail or succeed and the potential benefits that research findings may offer to the instructional design in foreign language teaching and learning. Employing goal theory and social cognitive theory in my study intended to make contributions in this respect.

Under the framework of goal theory, two major types of goal orientations that have been investigated are task-involved goal orientation and ego-involved goal orientation. Perceived competence is often examined together with goal orientations. Research findings have generally shown that when students have task-oriented orientations, despite their perceived competence, they tend to demonstrate more intrinsic interest in learning (Zimmerman & Kitsantas, 1999; Harakiewicz & A. J. Elliott, 1993; Meece, et al., 1993), used more effective self-regulated learning strategies (Zimmerman & Kitsantas, 1996), persist longer in times of difficulty (E. S. Elliot & Dweck, 1988), and perform better in achievement situations (Schunk & Swartz, 1993; Schunk & Rice, 1991; Schunk, 1996; Kanfer & Ackerman, 1989). They are also more efficacious about academic tasks (Roser, et al, 1996), and are more willing to seek help and less anxious (Newman, 1998).

However, more recent studies have indicated inconsistent findings regarding the effects of goal orientations, and the interaction effects of goal orientation and perceived competence on a variety of variables, such as college students’ course-related performance (Harakiewicz & A. J. Elliott, 1993; Harackiewicz, et al. 1997). In the study by Harackiewicz, et al (1997) using college students taking an introductory psychology course, the findings indicated that, when students are task goal oriented, they self-reported to have more intrinsic interest in learning. But ego goal oriented students achieved more. He cautioned that earlier conclusion of the effects of different goal orientations might be premature. However, readers should be cautioned that the achievement measures of the study are course grades, which included grades on assignments, instead of standardized exams, which could be a threat to internal validity of the study.

Other research has shown that, for ego goal oriented students, if their perceived competence is high, they tend to demonstrate similar patterns of behavior, beliefs and performance to those with task goal orientation (E. S. Elliot & Dweck, 1988). But if their perceived competence is low, they tend to avoid tasks that imply a risk of unfavorable judgment of their ability. These students are also more vulnerable to a behavioral pattern called learned helplessness. Learned helplessness is an acquired belief that outcomes of learning are not contingent upon the self as an agent or upon personally controllable factors (Kuhl, 1985). Other research has either failed to show that perceived competence moderate the effects of ego-involved goals or has shown null effects (A. J Elliot, & Church, 1997; Kaplan, & Midgley, 1997; Miller, et al, 1993). Could these inconsistent findings be a result of using different instructional context? Could different goal orientations exert different influence because of the learning tasks involved? With regard to the research findings of goal orientations and perceived competence, conclusions may still be premature. The present study intended to add to the knowledge by making alternative explanations.

Finally, Although research in the SL/FL learning indicates that strategy use is important for successful language learning (Oxford, 1990) and research findings have shown that specific strategy training (e.g. predicting) in specific area (e.g. reading comprehension) is beneficial (Chamot, 1993), little research seem to have examined whether training of self-regulated strategy use will have an effect on student use of self-regulated learning strategies and performance results. This study intends to fill in this gap in research.
I have discussed some research gaps in the context of SL/FL acquisition and the inconsistencies in the research findings regarding effects of goals and perceived competence outside the SL/FL context. This discussion leads to the purposes of the study to be presented next.

IV. Purposes of the study

There are three purposes of the study. First the study intends to examine the effects of goal orientation and perceived competence on student self-regulated learning strategy and achievement in learning a foreign language. Second, it is to investigate whether there is an interaction effect of goal orientations and perceived competence. The third purpose is to explore whether training of self-regulated language learning strategies will exert an effect self-regulated learning behavior and achievement. The study seeks to answer the following research questions:

1. Will students with task-involved goal orientation (TGO), despite their perceived competence, use more self-regulated strategies than students with ego-involved goal orientation (EGO) in learning a foreign language?
2. Will students with TGO, despite their perceived competence, achieve more than students with EGO in learning a foreign language?
3. How might goal orientations interact with perceived competence in affecting students’ use of self-regulated strategies in learning a foreign language?
4. How might goal orientations interact with perceived competence in affecting students’ achievement in learning a foreign language?
5. Will students with training of self-regulated learning strategy use more of these strategies than students without in learning a foreign language?
6. Will students with training of self-regulated learning strategy achieve more than students without in learning a foreign language?

Why are these questions important? The next section presents a brief discussion of the significance of the study.

V. Significance of the study

The study intended to make contributions in three aspects: 1) expanding the theoretical framework in the motivational research in SL/FL acquisition 2) clarifying the inconsistent findings regarding effects of goal orientations and perceived competence on students’ academic behavior and achievement and their interaction effects, and 3) exploring the effects of self-regulated strategy training on students’ use of self-regulated strategies and achievement in learning a foreign language.

The study may make contributions to the motivational research in SL/FL in that it may broaden the theoretical perspectives by using goal theory and social cognitive theory about perceived competence. Empirical studies employing new theories may further contribute to the instructional design of foreign language learning. For example, if task-involved goal orientation
is found to be significantly more positive than ego goal orientation in strategy use and achievement, class room instructions (e.g. evaluation methods) can be designed to influence student goal orientation.

As discussed earlier, research findings regarding the effects of the goal orientations and perceived competence have been mixed. It is not clear whether the effects of goal orientations and the interaction effect of goal orientation and perceived competence depend on some external cues, such as the learning tasks and the instructional context, or other variables. The study seeks to make contributions to the explanations of the researching findings in this respect.

Lastly, little prior research in the SL/FL context seems to have examined whether training of self-regulated learning strategy will affect student self-regulated learning behavior and achievement. Considering the importance of strategy use in learning a foreign language previously discussed, this question deserves to be explored.

In this chapter, I have discussed the general context of the research problems, the specific issues related to the problems, the gaps identified in the research, the purposes of the study, and the significance of the study. The next chapter will present a detailed discussion of the literature from which the study is based on, the hypotheses of the study evolved from the literature review, and a rationale for the hypotheses.
CHAPTER II

REVIEW OF THE LITERATURE

This chapter of literature review is organized into five major parts: 1) theoretical background of the study 2) relevant motivational research in and outside the context of SL/FL acquisition, 3) research on strategy training in and outside the context of SL/FL acquisition 4) how the present study relates to the body of literature and research in the SL/FL context, and 5) the hypotheses evolved from the literature review and the rationale for the hypotheses.

I. Theoretical background

A literature review reveals that there are two slightly different lines of theoretical discussion and research with regard to goals, although most researchers do not seem to make or realize this differentiation. The first line focuses on different goal orientations (e.g. task-involved versus ego-involved) whereas the other focuses on setting different types of goals (e.g. process goal versus product goals). Some researchers indicate that the second line of discussion is based on goal setting theory (Locke & Latham, 1990). Next I will discuss these two theories and present a brief comparison of them.

Goal theory versus goal setting theory

Goal theory focuses on goal orientations that individuals have in achievement settings. It claims that different goal orientations activate different motivational patterns in individuals (Dweck, 1986). It attempts to explain how different goal orientations activate psychological processes that affect individuals' cognition, metacognition, affect, and behavior. Goals are usually perceived as the immediate regulators of most human behavior, while other motivational aspects (e.g. perceived competence) exert a distal and indirect influence through goals (A. J. Elliot & Church, 1997).

Goal orientations have been contrasted as learning versus performance oriented (Dweck, 1986; Dweck & Leggett, 1988), task-involved versus ego-involved (Nicholls, 1979, 1984), task-mastery versus ego/social oriented (Meece & blumenfeld, 1988), and mastery focused versus ability focused (Ames & Archer, 1988; Ames, 1992). Learning oriented, task-involved, task-mastery, and mastery goals are similar concepts while the meaning of their counterpart parts in each contrast likewise converges. Among these contrasts, task-involved goal orientation (TGO) and ego-involved goal orientation (EGO) proposed by Nicholls (1979, 1984) seem to be most self-explanatory in terms of connotations.

Task-involved goal orientation refer to the purposes of increasing one’s competence or intelligence by understanding or mastering what is being learned in an achievement situation (Dweck & E. S. Elliott, 1983; Dweck, 1986; Dweck & Leggett, 1988). The focus of this goal orientation is a belief in effort-making and strategy use in the process of learning. For example, if a student focuses on selecting effective strategies to make a clear and logical presentation rather
than what the audience may think of him/her as a presenter, he/she may be considered to be task-goal orientated. On the other hand, if he/she is more concerned about whether people would think he/she is a good presenter, then he/she may be considered ego-goal orientated.

Goal theorists posited that different goal orientations would activate specifically different psychological processes by which individuals interpret the tasks, react to the tasks, and behave in a certain way in order to achieve their purpose in achievement situations (Dweck, 1986; Dweck & Leggett, 1988; Elliot & Dweck, 1988; Nicholls, 1989). When individuals have task-involved goal orientation, they tend to interpret the task at hand as a way to gain knowledge or increase their competence in that area rather than a way to prove their self-worth or to demonstrate personal ability. Ego is not a concern to them. Rather, they focus on understanding the materials and using effective strategies to learn. Individuals with task goal orientation are more likely to engage in task-relevant thoughts and behavior. Research has also shown that they tend to demonstrate more intrinsic interest in learning (Harackiewicz & A. J. Elliot, 1993).

Goal orientations also affect individuals’ attributional patterns for success or failure (Weiner, 1986). Individuals with task-goal orientation tend to attribute success to their ability and failure to a lack of efforts or ineffective strategy use, which are modifiable. Central to task-involved goal orientations is a belief that competence, ability or intelligence is incremental through effort and strategy use. Individuals having task-oriented goal orientations tend to focus on “How can I learn?” rather than “Do I have the ability to learn?” (Dweck, 1986). When facing obstacles or failures, they are more likely to persist, to find more effective strategy, or to attribute failure to controllable factors such as a lack of effort or ineffective strategy. They are less likely to think that their failure is an indication of a lack of ability, which is generally viewed as uncontrollable (Nicholls, 1984). However, individuals with task-involved goal orientations are more likely to attribute success to their ability which they believe increases with their efforts (Elliott & Dweck, 1988). This belief in effort-making and strategy use is constructive because it sustains a learner’s motivation to strive harder and continue learning. This adaptive attributional pattern also maintains goal-directed behavior in the long run (Weiner, 1986). An example of this is reflecting on one’s strategy use when engaged in a task and modifying ineffective strategies.

Ego-involved goal orientation refers to the purpose of seeking favorable judgments of one’s competence or intelligence or avoiding unfavorable judgments of one’s competence or intelligence (Dweck & E. S. Elliott, 1983; Dweck, 1986). Central to ego-involved goal orientations is a belief that competence, ability or intelligence is a fixed entity. Individuals with this goal orientation are more likely to focus on their ego (Dweck, 1986). An excessive concern of one’s ego or ability, especially for those whose perceived competence is low, may lead to a maladaptive motivational patterned called “helpless pattern” of thinking and behavior (Dweck, 1986). In other words, they may think that no matter how hard they try, they will not be able to learn because they are not capable.

Individuals with ego-goal orientation may approach the task with the purpose of proving or defensively protecting their self-worth (Covington & Omelich, 1979). On one hand, they see achievement situation as a place to demonstrate to others their ability when they perceive themselves to be able. On the other hand, in learning situations where they doubt their ability, they want to avoid appearing incapable by not making efforts. From this goal ideology, efforts are seen as inversely related to ability. Since efforts are essential in all academic endeavors, they may function as a “double-edged sword” for individuals with ego-goal orientation (Covington & Omelich, 1979).
Making insufficient efforts will further affect strategy use, because selecting what strategies to use and actually applying strategies consume cognitive energy and takes efforts (Gardner & MacIntyre, 1992). Learners with ego-involved goal orientation are more likely to experience higher anxiety in learning while they focus on their ego or self-worth. This may be especially detrimental to learning if the nature of the task or learning environment is already highly anxiety-arousing, such as what is well-documented in a foreign language learning classroom (MacIntytre & Gardner, 1991; Phillips, 1992; Young, 1991).

When Dweck (1986) initially discussed performance goal orientation (i.e. ego-involved goal orientation), she made a differentiation between performance approach and performance avoidance goal orientations. I did not treat these as two different types of goal orientations based on the fact that they are both ego-oriented. So they are both ego-goal orientations. Avoidance goal orientation is only activated with specific tasks where individuals with this goal orientation perceived their ability to succeed as low. In this case, their purpose may be to avoid demonstrating low ability by not making efforts to learn. But the ultimate motive is to protect one’s ego, which is of the same nature when one tries to outperform others in order to demonstrate normative high ability.

Goal theory is closely related to goal setting theory. However, there are some slight differences. Goal setting theory attempts to explain how different types of goals individuals sets in specific learning situations activate psychological processes that direct their cognition, affect and behavior (Locke & Latham, 1990). One definition of goal setting, from the social cognitive perspective, refers to establish a standard for acquiring knowledge or skills (Schunk, 1990). Under this framework, goals are related to specific tasks, such as to master certain grammatical features in a foreign language lesson, in contrast to a global or distal goal, such as to become bilingual in English and Chinese. Different goal types that individuals set lead to different motivational patterns, which are represented by different ways of approaching, engaging in, and reacting to achievement-related activities (Ames, 1992). As human beings are generally goal-directed, the goals that learners set may help anchor their attention, mobilize their energy, reflect on their learning progress, foster self-regulation, and contribute to success in learning (Locke & Latham, 1990).

According to Locke and Latham (1990), goal setting theory can be traced back to the turn of the twentieth century. At that time, there were two trends of precursors for goal setting. One was related to the industrial/business world (e.g. goal setting for lumber workers) and the other to the academic world (e.g. goals of learning for students). At this time, other concepts similar to goals, such as tasks, intentions, were used. Mace was the one who first employed the concept of goal setting in his research in 1930s. He examined the effects of specific, challenging goals versus general goals (e.g. “do your best”) and compared the effects of different levels of goal difficulty. Much interest was manifested in the research of the effects of goal setting on performance at the work place (see Locke and Latham, 1990, for a detailed review).

Locke and Latham (1990) reported a great number of research studies on goal setting. The research findings showed considerable increase in job performance as a result of goal setting. They reasoned that, if goal setting works effectively in industrial settings, it is logical to hypothesize that it will work as well in academic settings, where performance is also a salient feature. The difference is that, in the former situation, the performance is measured as a result of physical activities while, in the later, it is measured as a result of intellectual activities. However, the psychological processes that goals activate should be similar. The concept of goal setting
gradually attracted research interest in the academic arena as a result of pioneer work by these theorists and researchers.

Earlier research that Locke and Latham (1990) reported focused on the effects of setting goals of different levels of specificity or difficulty on performance. More contemporary research examined the effects of process goals versus product/outcome goals (Zimmerman & Kitsantas, 1996, 1997, 1999; Schunk, 1986; Schunk & Swartz, 1993; Schunk & Ertmer, 1999), and shift goals (Zimmerman & Kitsantas, 1997, 1999). Process goals focus on learning through using strategies whereas product/outcome goals focus on the end result of a learning activity. For example, using semantic map to organize the ideas in a book chapter is considered to be a process goal while finishing reading three chapters in a week is considered to be a product/outcome goal. Shift goals, as the name suggests, means shifting from initial process goals to product/outcome goals.

It is worth being pointed out that there has been some confusion in the discussion on the contrast of process and product/outcome goals and other goal contrasts previously discussed (e.g. task-involved goals vs ego-involved goals). Some researchers (Shunk, 1986; Shunk & Ertmer, 1999; Zimmerman & Kitsantas, 1996, 1997, 1999) conceptually equated process goals to learning goals and other similar concepts (i.e. task-involved goals), though the definition of process goals and product goals seem to be vague. A close look at their discussion revealed that process goals are different from learning goals because process goals focus on the process of strategy use (Zimmerman & Kitsantas, 1997, 1999) while learning goals focus on increasing competence through efforts and strategy use. The former seems to be more like means to reach the goal of learning rather than learning goals per se.

In the same way, product goals are equated with performance goals and other similar concepts (i.e. ego/social goals). Product goals seem to be defined as the purposes of making achievement in terms of time, rate and quantity of performance (Schunk, 1986). For instance, if one tries to finish certain amount of work in a limited amount of time, this is considered as a product goal. Product goals seem to have distinctively different features from performance goals and its similar concepts in that they focus on the end product of a learning activity as well as the quantity or speed of accomplishing a task. This should be treated as another type of goal and could be useful when the nature of a task entails high value of quantity and speed (e.g. running speed for runners).

Likewise, if achievement is defined in terms of time, rate, or quantity in order to gain favorable evaluation or outperform others, product goals are more of a means to reach the end of a performance goal rather than performance goals per se. However, because of the similarities these goal types share with other contrasts of goal types, they still merit discussion.

Goal theory focuses on the goal orientations that individuals have in achievement settings. It attempts to explain how different goal orientations that individual have activate psychological processes that affect individuals’ cognition, affect, and behavior (Dweck, 1986; Nicholls, 1979). Goal setting theory attempts to explain how different types of goals individuals adopt in specific situations activate psychological processes that direct their cognition, affect and behavior (Locke & Latham, 1990). Both theories converge on the fact that both attempts to theorize about the psychological process that is activated by sources related to goals. But they diverge in that goal theory focuses on an internal goal orientation while goal setting includes the external or behavioral aspects of actually setting certain types of goals.
One could postulate that goal setting might affect goal orientation or vice versa. For example, process goals, where individuals’ attention is drawn towards the process of learning by using strategies, may activate the task goal orientation. On the other hand, product goals, where individuals focus on the end result of learning, could activate ego-involved goal orientation if the result is perceived to be a demonstration of one’s ability. It could also be true that students with task goal orientation may be more likely to set specific learning goals while students with ego-involved goal orientation may be more likely to set product goals (e.g. get a perfect score on an exam). These hypotheses are out of the scope of the present study but future research may yield interesting findings.

Considering the close relationship and similarities between goal orientations and goal setting, research using both theories will be included in the discussion on research and research findings. Before such a discussion, I will turn to a review of the social cognitive theory and perceived competence, another theoretical aspect related to the present study.

**Social cognitive theory and perceived competence**

Social cognitive theory was developed by Bandura as a result of dissatisfaction of the explanations of human behavior offered by behaviorism. This theory views individuals as active agents of learning rather than being completely passively regulated by external forces from the environment (Stipek, 1998). Bandura (1986) claims that cognition, such as self-efficacy, exerts an influence on human behavior. Self-efficacy, or perceived competence, in Bandura’s theory, refers to individuals’ personal judgments of their capabilities for a particular type of task (Bandura, 1986). It is a domain specific perception of capability.

According to the social cognitive theory, perceived competence can affect individuals’ thoughts, beliefs, affective reactions and behavior in achievement settings. Individuals tend to avoid tasks in which they perceive themselves as incapable of succeeding, but they tend to approach the task with confidence if they perceive themselves as capable (Stipek, 1998). Research has also shown that individuals with high perceived competence tend to set higher goals, are more willing to take risks, and persist longer in the face of failure and difficulty (Locke & Latham, 1990; Zimmerman & Martinez-Pons, 1992; Zimmerman, 1995). In the motivational research under the framework of goal theory, effects of perceived competence is frequently discussed and examined with goal orientations (Dweck, 1986; Miller, et al., 1993). Goal theorists claim that perceived competence exerts a more distal effect on achievement behavior and task performance through goal orientations. Next I will discuss motivational research in and outside the SL/FL context related to the concepts just reviewed and the present study.
II. Motivational research in and outside the SL/FL context

Motivational research in the SL/FL context

Past research in second/foreign (SL/FL) language acquisition has focused on language aptitude, personality, learning styles and other individual differences (Gardner, 1985). In the past decade, researchers started to recognize that these variables can not fully explain the behavioral and achievement patterns demonstrated by language learners. Other researchers argue that motivation is critical in that it functions as an attention sustainer and action energizer (Ely, 1986). Motivation seems to be essential considering the nature of the learning task. For example, learning to master a second or foreign language, especially in a formal educational context, can be a slow and long process due to limitations in this context such as lack of linguistic input and authentic situations to practice, which are critical to language learning. In addition, this context is well documented as anxiety arousing, which generally work against motivation (Rodríguez, & Abreu, 2003; E. K. Horwitz, 1986; MacIntyre & Gardner, 1991, 1994b; MacIntyre, 1999).

Some researchers claim that motivation is one of the main determinants of success in learning a second/foreign language (Dornyei, 1994). Research in SL/FL acquisition has shown that motivation directly influence a variety of aspects of students learning the target language, such as the amount of linguistic input they receive, the amount of how much input would become intake (i.e. input that is processed and produces learning; Schuman, 1994), their performance on course-related achievement tests, and the likelihood of their maintaining and continuing to develop the skills after they terminate language study in formal classroom settings (Ely, 1986; Gardner, et al, 1992).

Much of the earlier motivational research before 1990s has been inspired by two Canadian psychologists, R. C. Gardner, Wallace Lambert and their associates (Gardner & Lambert, 1959). The major theories adopted in this line of research have been social-psychological, hence the initial name of “socio-psychological model”. Later it was referred to as Socio-Educational Model. This model is largely based on the background of second language acquisition rather than foreign language learning.

The Socio-Educational Model defines motivation of SL learning as a goal-directed behavior that includes a desire to reach that goal, efforts to reach the goal and positive attitude toward the target language (Gardner, 1985). Gardner and his associates (1985; 2000; 2003) contend that two major kinds of motivation contribute most to the success of SL learning: integrative motivation and instrumental motivation. Integrative motivation consists of three components: integrativeness, attitudes toward the learning situation, and motivation. Integrativeness refers to a willingness of the SL learner to identify with the target language community. This concept is hypothesized to influence SL learning because learning a SL not only encompasses acquiring linguistic features of the target language but also nonlinguistic features such as behavior and cognitive patterns of the people who speak the target language. A willingness to identify is argued to facilitate a learner’s motivation to learn the language (Masgoret & Gardner, 2003).

For the same reason, attitudes toward the target language community are hypothesized to at least partially determine success in SL. Attitudes toward the learning situation refer to the
learner’s reaction to the immediate context where the target language is being learned. In the SL context, this immediate context is more related to, compared to the FL classroom context, the community where the target language is spoken because the learner is very likely to obtain more linguistic and non-linguistic input from the target language community outside the classroom.

It is not clear, however, how “motivation” is defined. It could only be inferred from the general definition of integrative motivation that it might refer to the efforts a learner exerts in learning the language in order to be integrated to the target language community (i.e. the ultimate or distal goal).

Instrumental motivation refers to goal-directed behaviors as one sees a practical value or advantage of learning a new language (Gardner, 1991; Masgoret & Gardner, 2003). For example, learning a foreign language because one wants to find a high-paying job in a multinational business falls under instrumental motivation.

Most research conducted by Gardner and his associates are associated with SL learners and it focuses on integrative motivation. This is understandable because a SL environment provides a rich and immediate context for learners, usually the minority of the population, to develop integrative motivation to survive, to live with or to be accepted by and to possibly identify with people who speak the target language. However, research using Socio-Educational Model failed to answer many questions in a FL environment. As result, in late 1980s and early 1990s, it is challenged by a few researchers (Au, 1988; Dornyei, 1990; Crookes and Schmidt, 1991; Oxford and Shearin, 1994; Oxford, 1994; Dornyei, 1994a; Dornyei, 1994b). While acknowledging contributions made by Gardner and his associates, they challenged the limited theoretical scope of the model and explanatory power as related to FL learning.

According to Dornyei (1990), integrative motivation might be far less relevant for FL than for SL learners. FL learners rarely have sufficient experience with the community where the target language is spoken to develop motivationally advantageous attitudes. Therefore, they may be much less committed to integrating with speakers of that community. Some researchers called for a resurrection of motivational research incorporating theories from other fields of psychology such as industrial psychology and educational psychology. During this period of time, goal setting was mentioned as an important variable that might affect SL/FL learning (Oxford, 1994). Some progress has been made by Gardner and his associates incorporating goal setting theory. Tremblay and Gardner (1995) conducted a correlational study to investigate the relationship between the socio-educational model and goal setting. The study found that specific goals and frequent reference to these goals lead to increased motivational behavior. Goal setting in terms of goal specificity and frequency affected motivation through students’ attitudes towards the learning the target language. They argue that students with a positive attitude are more likely to set up specific goals and more frequently refer to their goals than those with a negative attitude. Attitude towards learning the SL/FL remains a major component in Gardner’s model. This might be true in the context of SL where attitude toward the target language community seems to be more relevant and salient. However, in the context of FL, where integrative motivation is not salient, the effects of attitude may not be as strong (Dörnyei, 1994a). Goals might have more direct and immediate effects on student learning.

Other progress on motivational research has been made using the concepts of extrinsic/intrinsic motivation. Recent motivational research has examined the relationship of extrinsic/intrinsic interest to student learning. Extrinsic motivation refers to the reasons for learning that are external to the learner such as a reward or a good grade while intrinsic
motivation refers to the enjoyment of and personal interest in learning for its own sake (Deci & Ryan, 1985). A correlational study conducted by Wen (1997) found that students who are intrinsically interested in Chinese culture and desirous of understanding one’s own cultural heritage correlated significantly with their achievement in learning Chinese as a foreign language. However, this study is limited in its generalizability because it only used students of Asian and Asian-American background.

With the above theories and research reviewed, it is now worthwhile to take a comprehensive look at them. Gardner’s construct of integrative motivation and instrumental motivation differs in that the former focuses on an internal desire aroused by the social environment to identify with the people who speak the target language while the latter focuses on an external reward for learning the target language. The ultimate goal for students with integrative motivation is to identify with the people who speak the target language through mastery of the language whereas for students with instrumental motivation it is to gain external benefits, that is, utilitarian benefits (e.g. finding a good job). Both motivational orientations concern goals distal in nature. The source at a deeper level for both integrative and instrumental motivational orientations is the ultimate goals. These goals are distal in nature and may not constitute a satisfactory explanation of the immediate human behaviors in the daily learning activities. For example, why do students with the same integrative motivation use strategies differently? Why do students with instrumental motivation demonstrate similar learning patterns to that of the students with integrative motivation? These questions can not be answered by the socio-educational model.

The extrinsic/intrinsic motivation seems to bring the motivational research a little closer to the learner in every day learning context. For instance, the extrinsic motivation could concern about an immediate reward for learning (e.g. high normative ranking in a class). The intrinsic motivation focuses on the learner. It seems logical that students with ego-involved goal orientation may be more extrinsically motivated while students with task-involved goal orientation may be more intrinsically motivated. However, a difference seems to exist between students with intrinsic motivation and students with task-involved goals. The former primarily views learning as an end by itself. For the latter, learning could be an end by itself, but it also has a focus on the learning outcome. For example, individuals with task-involved goal orientations may try to use effective strategies with a goal of not only enjoying the learning process but also accomplishing the task and mastery the content.

Compared to the constructs proposed in Gardner’s Socio-Educational Model and the constructs of extrinsic/intrinsic motivation, goal orientations and perceived competence seem to provide a better explanation of immediate regulators of human behaviors. Now let’s turn to a look at motivational research conducted outside the SL/FL context regarding the effects of goal orientations, goal setting, and perceived competence. Research on self-regulated learning related to the present study will also be discussed.

**Motivational research outside the SL/FL context**

Research on goal orientations seems to fall into three major categories: descriptive studies (Archer, 1994), correlational studies (Ames & Archer, 1988; A. J. Elliot & Church, 1997;
Harackiewicz, et al, 1997; McWhaw, & Abrami, 2001) and experimental studies (E. S. Elliot & Dweck, 1988; S. Graham & Golan, 1991; Pintrich, & Garcia, 1991; Kanfer & Ackerman, 1989). Research on goal orientations mainly draws upon the goal theory proposed by Dweck (1986) and Nicholls (1979, 1984). Based on the theoretical predictions, E. S Elliot and Dweck (1988) conducted an experimental study in the lab with elementary school children. They manipulated goal orientations (i.e. task-involved goal orientation versus ego-involved goal orientation) and perceived competence to test how these affect students’ patterns of approaching learning tasks. They found that students with task-involved goal orientation, despite their perceived competence, were more challenge-seeking and demonstrated mastery-oriented learning patterns in response to failure. Students with ego-involved goal orientation and low perceived competence tended to avoid challenges and were more vulnerable to the helpless pattern in face of failure. Students with ego-involved goal orientation and high perceived ability demonstrated similar motivational patterns to those demonstrated by task-involved goal orientation. But even these children tended to avoid learning tasks, which entailed risks of failure. The interaction effect of goal orientations and perceived competence was found in this study.

E. S. Elliott and Dweck (1988) argued that task-involved goal orientation and ego-involved goal orientation could be very useful to understand students’ achievement patterns. According to them, each of these different goal orientations activated different psychological processes that led to different cognitive, affective and behavioral consequences.

Support was also found in other field studies. Archer (1994) examined the effects of mastery goal orientation, ego goal orientation or academic alienation goal orientation and perceived competence on first year college students’ attitude towards a course they were taking, their willingness to deal with difficult tasks, and their effective use of metacognitive strategies. Academic alienation goals refer to complete academic work with minimum effort, which is similar to work-avoidant goals (Archer, 1994; Dweck, 1986; Meece, 1988; A. J. Elliot & Church, 1997). The study found similar results: the students with mastery goal orientation, despite their perceived competence, demonstrated more positive attitude, more willingness to face difficulties, and more effective use of strategies.

The study by Miller et al (1993) found some support for Dweck’s (1986) goal orientation theory in terms of engagement in self-regulated activities (e.g. cognitive strategy use). However, the study failed to find the interaction pattern of goal orientations and perceived competence predicted by Dweck and supported by other studies (Archer, 1994; Ames and Archer, 1988). Some research studies examined the relationship between goal orientations and self-regulated learning and achievement. Bouffard, et al (1995) reported findings from their study that students with both ego-involved goal orientation and task-involved goal orientation used more self-regulatory strategies and achieved higher academic performance than students with general goals (e.g. do well) or no goals. However, adhering to task-involved goal orientation has a more positive effect compared to ego-involved goal orientation. But in this respect, a difference existed between boys and girls, with the task-involved goal orientation affecting girls more than boys and ego-involved goals affecting boys more. Findings from similar studies (Meece, et al, 1988; McWhaw & Abrami, 2001) using elementary and high school students showed that students with mastery goal orientation reported a higher level of cognitive engagement (e.g. cognitive strategy use) and metacognition, both of which being aspects of self-regulated learning.
Despite the predominant findings of beneficial effects of task-involved goal orientations over ego-involved goal orientation in earlier research and the interaction effect of goal orientations and perceived competence, some recent studies started to show mixed or even contradictory results. Kaplan and Midgley’s study (1997) with high school students found little support for the role of perceived competence as a moderator between ego-involved goal orientation and patterns of behavior (i.e. use of adaptive versus maladaptive learning strategies). Contrary to what the literature generally found, the findings from this study indicated that students’ perceived competence had a mediating effect in the task-involved goal condition. Nonetheless, as the authors pointed out that these effects might be due to the analytical methods they employed in the study and the influence of a strong performance-goal oriented classroom climate on individual students, who were categorized as academically advanced.

Harackiewicz, et al (1997) investigated the relations between different goal orientations that college students adopted and their intrinsic interest and achievement, defined as course grades. The results showed that students adopting mastery goal orientation were more interested in the course. However, students adopting ego goal orientation obtained better course grades. The authors argued that both mastery and ego-involved goal orientations could lead to positive outcomes among college students. It is worth a note that the course grade in this study included grades from course assignments. Neither interrater reliability nor validity of the assignments as a measurement of achievement was discussed. In a theoretical article, Harackiewicz, et al (1998) further discussed that earlier conclusions regarding the effects of task-involved goals and ego-involved goals may be premature. They argued that in order for students to do well in their academic studies and to develop their intrinsic interest in learning, both task-involved and ego-involved goals were important.

Other correlational studies (A. J. Elliot & Church, 1997) found results similar to what was found in the study by Harackiewicz, et al (1997). These studies found that both mastery and ego-involved goal orientations would benefit students in their academic pursuit but performance-avoidance (i.e. work-avoidant) goals were inimical to both intrinsic motivation and graded course achievement.

More inconsistent results also emerged from other research on goal setting. Although most studies found that goals had an effect on a variety of academic outcomes (e.g. achievement, intrinsic interest, self-regulated learning activities), a study by Kanfer & Ackerman (1989) indicated that when learners did not have sufficient prerequisite skill at a tasks, goal setting would inhibit their performance. They argued that a goal-free treatment, similar to no goals or general goals, would enhance their task performance. This sounds reasonable if we consider the nature of the air-traffic controller task they employed in the three experiments in their study. The task seems to be extremely complicated for the participants, as also indicated in the discussion by the researcher. Without sufficient prerequisite knowledge, we can imagine that participant might feel frustrated in approaching the task and eventually lose any sense of direction. Another possibility is that the task itself demands too much cognitive resources (e.g. attention) in a short duration of time, leaving the participants little energy to attend to other cognitive activity, such as goal setting.

Still other research has shown that classroom contextual clues could have an influence on student goal orientation. Ames and Archer (1988) did a correlational study examining how high school students’ perception of classroom goal orientations and their perceived ability affect their use of effective learning strategies, choice of tasks, attitudes, and causal attributions. The study
indicated that students who perceived the classroom atmosphere as mastery-goal oriented, despite their perceived ability, used more effective learning strategies, preferred more challenging tasks, had a more positive attitude towards learning and making more adaptive causal attributions (i.e. believing that success will follow from efforts, a factor that is controllable). Students, who perceived the classroom as ego-goal oriented, tended to focus on the judgment of their ability, evaluated their ability more critically and make maladaptive attributions (i.e. attributing their failure to a lack of ability). The article did not explicitly discuss how performance goals and perceived competence interacted to affect dependent variables. But their discussion seems to imply that perceived competence had a mediating effect when students perceived their classroom as ego-oriented.

An experimental study by Newman (1998) investigated how different types of achievement goals affected elementary school children’s help-seeking behavior, which is one aspect of self-regulated learning, and how students’ personal goal orientation interacted with contextual goal orientation to affect help-seeking. He found that personal task-oriented goals had a positive influence on help-seeking while ego-oriented goals had a negative influence. The contextual goals opposite to the personal goals offset some of the effects, but the effects of personal goals remained stronger than the contextual goals.

I have just reviewed some research on goal orientations and perceived competence. Next I will review some research on goal setting. Research on goal setting has been primarily experimental and conducted in both the lab situation and the field. An experimental study by Zimmerman and Kitsantas (1996) examined the effects of process versus product goals with high school female students using a motoric task (i.e. dart-throwing). They found that process goals, compared to product goals, not only had more positive effects on students’ task performance, but also on their self-efficacy, self-reactions (e.g. pride, satisfaction), and intrinsic interest. It was also found that students with either goal surpassed those in the control group who had no goals or general goals (e.g. “Do your best.”), which opposed the findings from the study by Kanfer & Ackerman (1989) previously reviewed. Since prerequisite skills did not seem to be needed for participants to perform the dart-throwing task, previous discussion regarding Kanfer & Ackerman’s study may be a valid explanation of the differences in the findings.

More recently, Zimmerman and Kitsantas (1997, 1999) examined the effects of process goals, outcome goals (i.e. product goals), and shift goals (i.e. shifting from process goals to outcome goals) on the same variables as those in the 1996 study. They employed the dart-throwing task in the 1997 study and a writing revision task in the 1999 study. They found similar results with process and outcome goals and superior effects of shifting goals over the other goals. Participants in any goal condition surpassed those in the control group. It is worth a note that all these studies were conducted in a short period of time and how the students retain the effects afterwards remain to be answered.

Other studies using the constructs of process versus product goals involved participants from grade school children studying math, writing, in remedial reading class, and college students learning computer skills (Schunk, 1996; Schunk & Rice, 1991; Schunk & Swartz, 1993; Schunk & Ertmer, 1999). The general findings from these studies indicated that process goals, compared to the product goal condition, had a more positive effect on students’ self-efficacy, skill progress, self-regulated competency, and strategy use. In most of these experimental studies, a common finding is that participants, despite what goals they set or were assigned to
them, all surpassed those in the control group. The results all indicated that goals did exert considerable influence on students’ achievement-related cognition, affect, and behavior.

In the above section, I have discussed the research related to goal orientations, goal setting, and perceived competence. Now I will turn to a review of the literature and research related to self-regulated learning, a variable involved in the study I conducted.

The definition of self-regulated learning varies depending on from what theoretical perspective it is defined (e.g. self-worth theory, social cognitive theory). For instance, behaviorists or operant theorists emphasize foregoing existing modes of behavior to acquire new ones (Mace et al, 2001). Using self-recording to record the frequency of undesired behavior in the hope that it will eventually disappear is an example of self-regulated learning. Information processing theorists emphasize the self-regulatory sub-process of self-monitoring in terms of a negative feedback loop (Winnie, 2001). A negative feedback loop means a gap identified between current performance and what is expected. This information becomes the impetus for self-regulated learning. Social cognitive theorists stress goal orientations (Dweck, 1986), goal setting, and self-efficacy beliefs and view self-regulated learning as a cyclical process that involves a forethought stage, a performance and self-monitoring stage, and an evaluation and self-reflection stage (Bandura, 1986; Zimmerman, 1989, 1990, 2001). All definitions of self-regulated learning share some common assumptions: all assume that self-regulated learning involves systematic use of behavioral, motivational, cognitive and metacognitive strategies; all assume that it involves a self-oriented feedback loop, and all definitions indicate how and why students choose to use a particular strategy (Bandura, 1986; Zimmerman, 1990). Central to all definitions is the concept of goals, although the types of the goals vary (e.g. ego-oriented goals, task-oriented goals).

The concept of self-regulated learning adopted in the present study I conducted is closely related to the social cognitive theory. This theoretical framework seems to incorporate various theories such as behaviorism, information processing theories, goal and goal setting theories, as well as social learning theories. Therefore, it seems to have more explanatory power. From this theoretical perspective, self-regulated learning refers to a cyclical process that involves self-generated thoughts, feelings, and actions that are systematically directed towards achieving personal goals (Zimmerman, 1989).

Social cognitive theory owns much to Bandura’s seminal work Social foundations of thought and action: A social cognitive theory (1986). According to Bandura, self-regulation is a triadic reciprocal process that involves personal (cognitive and affective), behavioral, and environmental variables. Under this theoretical framework, Zimmerman proposed a cyclical model of self-regulation that involves three phases: forethought phase, performance/volitional control phase, and self-reflection phase (Zimmerman, 1998). According to Zimmerman (1998), forethought phase sets the stage for learning by exerting an influence on the processes and beliefs before learning. This stage involves sub-processes such as goal setting, strategic planning, generating self-efficacy beliefs, goal orientation, and intrinsic interest. Performance or volitional control occurs during learning and it affects a learner’s attention to the task and his performance. Sub-processes involved in this phase are attention focusing, self-monitoring and strategy use such as self-instruction. Self-reflection stage influences a learner’s reaction to learning experience. Self-evaluation, attribution, self-reaction are sub-processes that occur during this phase. The information gained from self-reflection is assumed to feed back to the forethought,
and affect subsequent stages, thus starting the functioning of a new cycle until the goal is achieved.

A major component of self-regulated learning is the use of self-regulated learning strategies. Self-regulated learning strategies refers to actions and processes that a learner engages to acquire knowledge or skill that involve agency, goal, and value perceived by the learner (Zimmerman & Martinez-Pons, 1986). Self-regulated learning strategies include such methods as organizing and transforming information, self-consequating (e.g. reward oneself after some accomplishment), seeking information, and rehearsing or using mnemonics (Zimmerman & Martinez-Pons, 1986; Butler and Winne, 1995; Oxford, 1990).

Self-regulated learning is a pivotal contributor to academic success as well as a highly-desired educational outcome (Paris & Newman, 1990; Zimmerman, 1986, 1990, 1998; Winne, 1995; Butler & Winne, 1995). Research has shown that self-regulated learners approach academic tasks more strategically, with more confidence, with more positive attitudes and achieve more (Zimmerman & Martinez-Pons, 1986). But not all students self-regulate their own learning. Then what activate self-regulated learning, in particular, self-regulated strategy use? Research indicate that individuals are more likely to use self-regulated strategies when they believe they are capable of mastering the task, and when they perceive the task as interesting or important (Zimmerman et al, 1992). As the definition of self-regulated learning suggests, all self-regulated behavior is goal-directed. Therefore, it is reasonable to think that goal orientations might function as a psychological impetus that drives self-regulation. When one considers that self-regulated learning is a goal-directed process, it is logical to think that goals may be a more immediate and critical catalyst that activates self-regulation. The effect of goal orientations on self-regulated strategy use is another possibility worth exploring in the motivational research. It also seems plausible that different goal orientations may activate different patterns of self-regulated learning strategy use.

Research indicates that using self-regulated learning strategies is critical in the success of learning a new language and good language learners use a variety of self-regulated learning strategies (Oxford, 1990; Rubin, 1975). However, in the SL/FL context, no research has investigated what activates self-regulated learning. Neither is there any research that has investigated whether students with different goal orientations will use self-regulated learning strategies differently or whether self-regulated strategy training will affect students’ use of strategy. Therefore, research related to self-regulated learning is necessary in the SL/FL context.

III. Research on strategy training

Strategy training outside the SL/FL field, from native language reading, through the industrial, business, and medical field, to general problem-solving has been widely documented to be successful (see Oxford, et al., 1990, for a review). The benefits have also been well-documented in students learning various subjects in their first language (Pressley & Harris, 1990). A number of studies indicate significant gains in reading comprehension of poor readers (Palincsar, et al., 1984; Pressley, et al., 1982). There are also a number of articles that discuss about what strategies that successful language learners use observed by researchers (Rubin,
Researchers have argued that language learning strategy use is one of the most important individual difference factors that affect success in second language acquisition (Green & Oxford, 1995; MacIntyre, 1994; Gardner & MacIntyre, 1993; MacIntyre & Gardner, 1991). MacIntyre & Gardner (1991) found that the use of certain affective and motivation-related strategies (e.g. using positive self-instruction) eases language learning anxiety, thus freeing up cognitive resources that the learner can apply to effective use of cognitive learning strategies, which is part of self-regulated learning strategies.

Research on strategy training in SL/FL learning usually focuses on training of specific strategies in a specific area. For instance, a few studies have examined the effects of teaching specific strategies, such as mnemonics, on vocabulary learning (A. D. Cohen, 1980; Pressley, et al., 1982). Some studies examined the effects of reading strategy training in learning French as a foreign language (Hosenfeld, et al., 1981) and learning strategies in acquiring speaking or listening skills in English as a second language (O’Malley, et al., 1985; O’Malley, et al., 1989). Oxford, et al. (1990) conducted six case studies in different countries that investigated the effects of self-regulated language learning strategies training on student learning. Results from all these studies showed beneficial results, varying across language tasks. However, most of the studies were descriptive in nature and lack of generalizability. Besides what was just reviewed, I’ll report the following two studies that seem to be more relevant to the present study.

Chamot (1993) conducted an interesting study that investigated the effects of integrating strategy instruction in regular classes on self-reported use of these strategies in class and at home by high school and college students learning elementary Japanese, and high school students learning elementary Russian and Spanish. Specific techniques from three categories of language learning strategies were taught: metacognitive strategies, cognitive strategies, and social and affective strategies (Note: Social and affective strategies are treated as two separate categories in SILL, the questionnaire used to assess self-regulated strategy use in the present study). For example, the strategy of selective attention from metacognitive strategy category was taught. From the category of cognitive strategies, imagery was taught. From the last category, cooperation (e.g. working with a partner to solve a task; seeking help) was taught. It was found from the study that the majority of students reported using the strategies taught in class. The author claimed that this resulted from the strategy training. Unfortunately, this study did not include a control group to compare the results. This leaves the beneficial results found in the study questionable.

Another study by White (1995) found that students in a distance learning environment used significant more metacognitive strategies, part of self-regulated learning strategies, than students in classroom context. This may imply that to train students to be self-regulated, classroom instruction and activities need to give student more autonomy. It seems from this study that, when given more autonomy, students are forced to use self-regulated learning strategies. Then what effects may goal orientations have on student strategy use in a distance learning context where students have much more autonomy than students in the classroom context? The answer to this question is beyond the scope of the present study but it may be in an interesting research topic that can be future explored.

According to Oxford (1992/1993), examples of research methods used in investigating what strategies good learners use in second language acquisition have been informal or formal interviews, group discussions, language learning diaries, open-ended surveys, think-aloud protocols that require students to verbalize their strategies while using them. All these research
except the study by Chamot (1993) and Oxford, et al. (1990) are descriptive in nature and lack of generalizability. Although findings from the research indicates that strategy training in second language acquisition positively affects learner proficiency, the results have not been consistently tested and confirmed (Chamot, 1990). In addition, much of the research has focused on metacognitive and cognitive strategies and ignored powerful affective and social strategies (Oxford, 1992/1993; Oxford, et al., 1990). The present study included both affects and social strategies.

The quasi-experimental study I conducted included both global self-regulated learning strategies (e.g. goal setting), as was used in Chamot’s study in 1993, and specific strategies, as was in some other studies reviewed before (e.g. using linguistic clues to guess the meaning of unfamiliar words). As findings from other research using case studies (Oxford, et al., 1990) indicated that explicit strategy training (i.e. overtly telling learners about a strategy and how to apply it ) was successful (Oxford, 1990), this method was employed in the strategy training in the present study. Considering that there has been little experimental study that has examined whether training of self-regulated strategy use will result in more self-regulated behavior in students and student success in foreign language learning, one of the purposes of the present study is to make contributions in this aspect of SL/FL acquisition research by extending it to an experimental context.

IV. About the present study

As previous mentioned, employing goal theory and perceived competence in the motivational research of SL/FL is intended to broaden the theoretical framework of the research in SL/FL. Considering the findings of the effects of goal orientations and perceived competence in studies outside the SL/FL context, it is worth the research efforts to find out how these motivational factors affect student learning and learning behavior in the unique context of foreign language learning.

Regarding self-regulated learning, although the term is rarely mentioned in the context of SL/FL, similar concepts, such as self-directed learning, self-instructed learning, and self-accessed learning are addressed in relevant literature (Parry, 1996; A. D. Cohen, 1990, cited in McDonough, 2001; Oxford, 1990). In the SL/FL context, self-directed language learners are described as those who make decisions, either by him/herself or with the help of others, on what goals they need to set up for learning, what resources (including strategies) they can use, and how they can monitor their progress of learning. This definition is similar to the concept of self-regulated learning defined by Zimmerman (1989), except that it has a component of being other-regulated. I assume that this other-regulatedness is only needed at the beginning stage of learning a language. As individuals mature in the process of learning, they will become more and more self-regulated.

Self-regulated learning has recently been recognized as an important aspect in SL/FL learning that merits empirical research (McDonough, 2001). Foreign language learning seems to provide a rich context for self-regulated learning for a few reasons. First, the popular use of Communicate Approach in the current classroom seems to make self-regulation critical for success. This approach was developed in the 1970s as a result of dissatisfaction of other
language teaching approaches (e.g. Audio-lingual method, Grammar Translation Method) that failed to foster real communication (Oxford, 1990). The approach focuses on actively engaging students in learning in order to develop their communicative competence (i.e. ability to communicate in real life situation using the target language) in the four basic language skills -- listening, speaking, reading and writing. It requires students to take greater responsibility for their own learning and use a variety of language learning strategies (e.g. using positive self-talk to overcome anxiety). This instructional context apparently provides a rich ground to employ self-regulated strategies (Oxford, et al., 1989).

Second, different from second language learning, a core part of foreign language experience occurs in the classroom. The linguistic input and the opportunity a learner can use the language in the classroom and outside the classroom is limited, compared to the second language context. Whether individuals can succeed or not in mastering a foreign language to a considerable degree depends on how they manage personal and environmental resources outside the classroom and how much efforts they put in learning outside the classroom. If individuals perceive themselves as active, self-regulated learners and behave accordingly, they are more likely to find and engage in more learning activities outside the classroom and to eventually succeed (Zimmerman, 1990). For example, they may make efforts to watch movies in the target language or find opportunities to associate with native speakers of the target language. These are important self-regulated learning strategies in SL/FL acquisition.

Third, to master a foreign language is a long and complex process compared to learning other skills such as learning a math concept (Oxford, 1990). Learning a new language requires more intensive, extensive, and extended practice, direct interaction with others, and making errors in front of others and thus exposing one’s ego to be challenged. It may also involve ability to manage one’s emotional turbulence due to cultural and language shock in the language learning process (Schumann, 1994). It requires incredible perseverance by the learner. Being able to self-regulate one’s emotions is important in maintaining the motivation to persevere.

Fourth, use of learning strategies has been recognized as an important characteristic of motivated learners (Zimmerman, 1989, 1990) and it plays an important role in the success of language learning (Oxford, 1990). What activates self-regulated strategy use and how can instructions be designed to foster it? Do students with different goal orientations use strategies differently? Does perceived competence affect student learning and learning behavior in the SL/FL context? Will students who are explicitly trained in self-regulated learning strategy employ more strategies than those who are not? These questions deserve to be answered. The present study attempted to provide some answers to these questions. Next I will also briefly discuss why students’ achievement is worthy of research attention.

Academic settings are one of the situations where achievement is salient. When individuals approach a task, it is natural that they want to experience satisfaction that comes with their achievement. Achievement gives individuals a sense of satisfaction that may turn into further motivation to learn. Foreign language learners especially need this sort of motivation due to the nature of the task previous discussed (e.g. long learning process). So it is essential for language researchers and educators to find ways that help students achieve a desired level of performance. Motivation is one of the aspects that are worthy of attention and that might help us understand students’ achievement patterns.

I have so far reviewed and discussed the literature on goal theory, goal setting theory, social cognitive theory and perceived competence, self-regulated strategy training and strategy...
use in the context of SL/FL learning, student achievement in academic settings and why achievement makes an important variable that is worthy of research attention. I have also reviewed and discussed the research findings related to these aspects and the motivational research in and outside the context SL/FL acquisition. The review of the literature and an analytical discussion of relevant research contribute to the hypotheses of the study and the rationale for these hypotheses, to which my discussion will turn next.

V. Hypotheses of the study

Six hypotheses evolved from the literature review and the research questions:
1. Students with task-involved goal orientation (TGO), regardless of perceived competence (PC), will use more self-regulated strategies than students with ego-involved goal orientation (EGO) in learning a foreign language.
2. Students with TGO, regardless of perceived competence, will achieve more than students with EGO in learning a foreign language.
3. Students with EGO and high PC will use more self-regulated learning strategies than students with EGO and low PC in learning a foreign language.
4. Students with EGO and high PC will achieve more than students with EGO and low PC in learning a foreign language.
5. Students who receive strategy training will use more self-regulated learning strategies than students who do not receive strategy training in learning a foreign language.
6. Students who receive strategy training will achieve more than students who do not receive strategy training in learning a foreign language.

The hypotheses related to effects of goal orientations and perceived competence on student use of strategies and achievement are in line with the goal theory proposed by Dweck (1986). It is also consistent with the findings from some research based on this theory conducted in the lab (E. S. Elliot & Dweck, 1988) as well as in the field (Graham & Golan, 1991; Pintrich, Garcia, 1991; Kanfer & Ackerman, 1989; McWhaw & Abrami, 2001).

Regarding the effects of goal orientations on self-regulated strategy use, when students are task orientated, their primary concern is “how can I learn well?” rather than “Can I learn well?” as it is the case when they are ego oriented (Dweck, 1986; Zimmerman, 1989). This way of thinking of “how” might make them more willing to learn, apply strategies and monitor the strategy effectiveness. In addition, students with task-oriented goals take more initiative to learn and see themselves as active agents of learning (Dweck, 1986). To them, learning is within their personal control. Therefore, they may be more likely to exercise their self-influence and resort to the self as a major impetus for learning, hence more use of self-regulated learning strategies. In addition, students with task goal orientations tend to focus on learning rather than external judgments on their ability (Dweck, 1986). Their primary concern is not on task-irrelevant issues such as their ego but rather how they can learn. Therefore, even when their current perception of their ability to learn is low, their belief that competence can increase by efforts and strategy use may override the negative effects, if any, of initial low perceived competence.

However, for students with ego-involved goal orientation, their primary concern is external evaluation of their performance (e.g. a grade) and their ability to learn well (i.e. Can I
learn well?). These individuals tend to see ability as an entity that one can not easily change (Dweck, 1986). Since ability is usually perceived as closely related to one’s self-worth (Covington & Omelich, 1979, 1984), this concern of ability may direct part of their energy (e.g. attention, thoughts), which could be investigated in learning, towards concern of their ego or self-worth (Dweck, 1986; Covington & Omelich, 1979, 1984), which is irrelevant to the task and does not contribute to learning. The concern of their grade and ego may not only unnecessarily consume their cognitive energy that could be used more constructively in learning, but also it may suppress their use self-regulated learning strategies which takes efforts and cognitive energy. For instance, in order to use semantic mapping to learn vocabulary in a lesson, one has to spend time reorganizing the relationship between the words. This takes critical thinking that not only involves extra efforts but also consumes cognitive energy.

Research also indicates that students with ego goal orientation tend to use superficial learning strategies (e.g. memorizing) that help them perform well in the short run to look competent or to avoid being judged as incompetent (Zimmerman, 1989, 1990). But this may not necessarily help them internalize the information as “deep processing (e.g. paraphrasing, summarizing) strategies do (Zimmerman, 1989, 1990). So in the long run, the achievement of students with performance goal orientation may suffer.

On the other hand, theories hypothesized (Dweck, 1986) and tested by research (Elliot & Dweck, 1988) that when students with ego goal orientation perceive their ability to master a task as high, they may exhibit similar patterns of cognition, thoughts, and behavior to that of students with task goal orientation. So they may be more likely to use self-regulated strategies and achieve more as compared to students with the same goal orientation but with low perceived competence. Apart from this, ego goal orientation and low perceived competence may make them more vulnerable to the helpless pattern of learning, because these individuals tend to believe that ability is beyond personal control (Dweck, 1986).

Finally, it is logical to say that this concern of their ability, ego and self-worth may also cause anxiety inimical to learning, which may be especially detrimental in the context of SL/FL learning, where the general anxiety is already documented to be high (Rodríguez, & Abreu, 2003; E. K. Horwitz, 1986; E. K. Horwitz, et al, 1986). Research has documented that anxiety is negatively related to motivation (MasIntyre, & Gardner, 1994a). Anxiety and motivation have opposite effects on language learning. Whereas motivation promotes it, anxiety impairs it (Rodríguez & Abreu, 2003; Gardner, et al, 1992). In a foreign language classroom, especially where Communicative Approach is used, students have to interact with others to practice and will unavoidably make mistakes publicly. If students are too concerned with their ability to learn, their ego and self-worth, which are all irrelevant to the learning tasks, it seems inevitable that they will be distracted from learning.

Regarding the effects of self-regulated strategy training, I have found only one study by Chamot (1993) that examined its effects on strategy use in foreign language learning. A shortcoming of this study was that it did not include a control group. However, as reviewed before, a number of descriptive studies have shown beneficial results of training of specific strategies. Based on prior research and my logic, it is hypothesized that students who receive strategy training will outperform student who do not in both strategy use and achievement. In the SL/FL research, learning style is a variable frequently discussed. Some research show significant link between student use of learning strategies and their learning styles (Ehrman & Oxford, 1990). But research has also indicated that learners can stretch beyond their learning style and
use effective strategies that they originally felt uncomfortable using (Oxford, 1992/1993). This implies that appropriate and effective training may override the effect of learning styles so that students do not need to be enslaved by their individual learning styles.

Likewise, since students with both goal orientations will use some strategies, having this information highlighted and available to them may draw their attention to the usefulness of the strategy. Therefore, students who receive training, regardless of goal orientation and perceived competence, may use more strategies overall than those who do not receive training. As strategy use contribute to success in learning (Oxford, 1990), students who receive this training may also achieve more than those who do not.

The next chapter will discuss the research method used the present study.
CHAPTER III

METHOD

The present study was a quasi-experimental study using intact classes. It was conducted with ten classes with two from each of the following five foreign languages: Arabic, Chinese, German, Japanese, and Russian. The two Russian classes were excluded from the final analysis because students failed to comply with the research requirements. The study was conducted in the fall semester in the year of 2004 from the second week to the fourth week. I did not choose to start the experiment in the first week of the semester because drop/add occurred during this week.

At the beginning of the second week, five classes were randomly selected from each of the five languages to receive training of self-regulated language learning strategies. This group of students comprised the experimental group. The other group of students served as the control group. The control group also received the training material at the end of the experiment. By doing so, it excluded an ethical concern that some participants might have been deprived of potential benefits of the training. At the outset of the study, students who were willing to participate signed a human subject consent form (see Appendix A). Then demographic information (see Appendix B) was collected and the questionnaire of the perceived competence (see Appendix C) was administered. At the same time, students in the experimental group were provided with the self-regulated learning strategy training brochure (see Appendix D). Goal orientation questionnaire (see Appendix E) was administered at the beginning of the third week. The self-regulated strategy use questionnaire, Strategy Inventory for Language Learning (SILL, see Appendix F) was administered at the end of the fourth week. Achievement scores from tests during the time of the experiment were collected at the end of the study. The following provides a detailed description of the study.

I. Participants

Participants were students enrolled in the first elementary level of foreign language courses offered by a foreign language department at a university in north Florida. These were elective courses. The foreign languages involved were Arabic, Chinese, German, Japanese, and Russian. The study was conducted in regular classes in three weeks, from the beginning of the second week to the end of the fourth week in the fall semester of the year 2004. There were five sessions each week for each class. Each session lasted fifty minutes. The human subject consent form and demographic information were distributed to 216 potential participants. However, some participants dropped or were dropped from the data analysis of the study due to reasons explained below.

All participants (n=32) from the Russian program were dropped because the experimental group didn’t comply with the research requirement. Specifically, they did not submit the assignment that was required after they received the strategy training. The control group from Russian was also dropped for convenience of analysis, considering the remaining sample size.
was sufficient. Some potential participants (n = 49) from other languages were dropped either for failing to comply with research requirement, serious incomplete data, or they were identified as outliers based on the demographic information they provided (e.g. heritage speakers already possessed reading or writing skills in the target language at the elementary level or above). The final sample of the participants consists of 117 students. An examination of the demographic information did not indicate any pattern of students who dropped or were dropped from the study. Therefore, the final sample is still considered representative of the population.

Among the 117 participants were 18 freshman, 38 sophomores, 39 juniors, 15 seniors, 5 graduate students, and 2 indicated as “other” (i.e. transferred student and dual enrolled). Forty-five of them were female and 72 were male. The age ranges from 16 to 49 (M=20.7). The participants were predominantly white Americans (n=72), with 14 African-Americans, 9 Asian-Americans, 11 Hispanic, 8 other (i.e. mixture of races), and 1 undeclared. Participant distribution across the four languages was: 28 from Arabic, 37 from Chinese, 18 from German, and 34 from Japanese. Participants were pursuing various specialized disciplines such as Asian Studies, Computer science, and International Affairs. Participants were informed that participation in the study was voluntary and they might drop out of the study any time if they did not wish to participate.

II. Procedure

In order to assure accurate self-reported responses, an e-mail was sent before the study commenced to the participants to inform them that 1) they would be asked to fill in some questionnaires during the second and the fourth week of the semester, 2) their efforts to be accurate in responding to the questions would help contribute to the reliability of the research findings, 3) their answers would be kept confidential to the researcher and their names were only to be used for identification purpose (their instructors would not see their names and answers), and 4) their answers would in no way affect their grade.

The study ran from the first day of the second week to the last day of the fourth week. Two classes from each of the five foreign languages participated in the study. These languages were selected because they were all less commonly taught foreign languages in the southern United States and few students had previous experience learning these foreign languages before coming to college. Within each language, one class was randomly assigned to receive training in self-regulated language learning strategies at the beginning of the study. The other group served as a control group. Due to an ethical concern, the control group was also provided the training at the end of the study so that the participants would not have been deprived of any potential benefits of the research.

On the first day of the second week, the researcher visited each of the classes and gave an overview of the research. Potential benefits of participating in the study, including the benefits of receiving language learning strategy training, were explained to all participants. They were again informed that participation was voluntary and they might drop out of the research any time. Those who were willing to participate were asked to sign an informed human subject consent form.
Demographic and other general information (e.g. prior experience learning the foreign language) was collected from all participants using the Demographic Information Questionnaire on the first day. This information was collected for identification purpose as well as for data analysis. Some questions (e.g. Do you speak the foreign language at home?) were designed to identify potential outliers (e.g. heritage speakers). All participants were also asked to fill out the Perceived Competence Questionnaire.

Students in the experimental group received a language learning strategy training brochure on the first day. The training material was a self-study guide (see Material for details). They were informed that the material explained about self-regulated language learning strategies that could help them learn the foreign language. To ensure that participants read the material, they were asked to complete a one-page reflection paper stating how they applied or would apply the self-regulated strategies to learn the foreign language they were currently taking in that class.

Participants were given one week to complete the assignment. In the middle of the week, the researcher sent a reminder of completing the reading and the assignment to all participants. They were requested to submit their assignments either to the researcher or to their instructors who were provided an envelope by the researcher and the envelopes was sealed in front of the students once the assignments were collected. After all assignments were collected, the researcher read the assignments to decide whether their reflection provided evidence that they had read the self-study guide. The assignments indicated that students did read the training material because the reflections showed a correct understanding of the strategies and reasonable application of the strategy to the specific foreign language that they were learning. Students who did not do the assignment were excluded from the final analysis.

During the second week of the experiment, the researcher asked all the instructors to administer the Goal Orientation Questionnaire to their classes. The questionnaires were given to the instructor with detailed instructions on how to distribute and collect the survey. The students completed the survey in class and returned the completed questionnaires into the envelope provided by the researcher. The instructor then sealed the envelope in front of the students and returned it to the researcher. I chose to administer this questionnaire after the participants had one week of instruction in the foreign language so that some of the items in the questionnaire made more sense and were more applicable to the learning situation.

At the end of the fourth week, all participants filled out the self-report scale of self-regulated language learning strategy use, SILL. The questionnaire was administered in the same way as the Goal Orientation Questionnaire was. After this, the researcher sent an e-mail to all participants, thanking them for their participation, debriefing the experiment and giving the students a sense of closure of the research activity. During the following week, student test scores were collected from the instructors. These tests were taken during the three weeks of the experiment. All tests were achievement tests that included content (e.g. vocabulary, grammar) learned in class. None included speaking. At the end of the experiment, participants in the control group also received the self-regulated language learning strategy training material.
III. Measures

Perceived competence

Perceived competence was assessed by the Perceived Competence Questionnaire (a=.93). Perceived Competence Questionnaire is an 8-item 5-point Likert scale adapted from a subscale in the Motivated Learning Strategy Questionnaire (Pintrich & De Groot, 1990). Perceived competence was selected because the findings regarding the interaction effects of goal orientation and perceived competence have been inconsistent. Earlier theory (Dweck, 1986) and research (Elliot & Dweck, 1988) indicates that perceived competence does not affect task goal orientated students in the pattern of approaching learning tasks whereas how ego goal orientation affects student learning patterns is moderated by how they perceive their ability in the learning tasks. Some research has shown that individuals with task goal orientation, regardless of their perceived competence, would outperform those with ego-involved goal orientation on cognitive engagement, adaptive learning strategies, self-regulation, and academic performance (Archer, 1994; Bouffard, et al, 1995; Meece, et al, 1988; Roeser, et al, 1996; Urdan, 1997; Wolters, et al, 1996). However, students with ego-goal orientations and high perceived competence tend to demonstrate similar learning patterns to those demonstrated by students with task-goal orientation while individuals with ego-goal orientation and low perceived competence tend to suffer in these measures (Dweck & Legget, 1988).

Nonetheless, more recent research failed to support the above findings (Miller, 1993; Kaplan & Midgley, 1997; Harackiewicz, et al, 1997). On the contrary, Kaplan and Midgley (1997) found a moderating effect of perceived competence for students with task-involved goal orientation instead of for students with ego-involved goal orientation. Harackiewicz, et al (1997) found that college students with ego-involved goals achieved better than college students with task-involved goals in an introductory psychology course. However, students with task goal orientation were found to be more intrinsically interested in the course. Others failed to find evidence that perceived competence moderated the effects of ego-oriented goals (A. J. Elliot & Church, 1997; Kaplan & Midgley, 1997; Miller, et al, 1993).

Due to the inconsistent findings discussed above, perceived competence was selected as a variable to investigate whether it would interact with goal orientations to affect students’ use of self-regulated learning strategies and achievement in the context of foreign language learning.

The Perceived Competence Questionnaire assessed student perception of their ability of learning in the particular language course they were taking. The results of this questionnaire were used to categorize the participants into low and high perceived competence groups using a median split method. This method has been used by previous studies (e.g. Miller, et all, 1993: Harackiewicz, et al, 1997).

Goal orientations

Goal orientations of students were assessed by the Goal Orientation Questionnaire (a=.68). Goal Orientation Questionnaire is an 8-item 5-point Likert scale adapted from a subscale in Motivated Learning Strategies Questionnaire (Pintrich & De Groot, 1990). Four of the items assessed student task-involved goal orientation and the other four assessed student ego-involved
goal orientation. The original scale is called Extrinsic/Intrinsic Goal Orientation scale. An examination of conceptual explanations of the scale and the items made by the authors of the scale (Pintrich & De Groot, 1990) reveals that the extrinsic goal orientation is in line with the ego-involved goal orientation which focuses on demonstrating one’s ability and getting a good grade. The intrinsic goal orientation is in line with the task-involved goal orientation because it focuses on the process of learning in terms of taking challenges, gaining personal satisfaction in learning itself, and increasing one’s competence through strategy use, efforts and mastering the content being taught.

The Goal Orientation Questionnaire assessed student goal orientations in the context of the particular language course participants were taking. The results of this questionnaire were used to form goal orientation groups. Because the number of items for each goal orientation in the questionnaire is equal, students whose total scores were higher on the task-goal orientation items were categorized as task-goal oriented. Students whose total scores were higher on the ego-involved goal items were categorized as ego-goal orientated. This method of categorization patterned after what was used in the study conducted by Miller, et al (1993).

Goal orientation was selected as a variable of inquiry because previous theories claim that student with task-involved goal orientation will demonstrate more adaptive cognition, metacognition, emotion, behavior towards learning as well as higher achievement than students who are ego orientated (Dweck, 1986; Dweck & Leggett, 1988). Research findings from experiments conducted in the laboratories also provided evidence for the theoretical predications (Elliot & Dweck, 1988). However, more recent findings in the field indicated mixed results (Harackiewicz, et al, 1997). Additional research using participants in different contexts will add new knowledge to this area of study.

**Self-regulated strategy use**

Use of self-regulated learning strategies was assessed by Strategy Inventory for Language Learning (SILL) designed by Oxford (1990). According to Oxford (1990), language learning strategies are specific behaviors, affect, cognitions or techniques that students consciously initiate and employ to process the linguistic input (e.g. internalizing, storing, and retrieving) they receive in the target language and use it. SILL was created and revised by Oxford based on various prior research with learners of English as a second/foreign language. It captures all aspects of self-regulated learning strategies -- self-initiated behaviors, cognition, metacognition, motivation, affect and environmental manipulation – as defined from a social cognitive perspective (see Zimmerman, 1989; Zimmerman & Martinez-Pons, 1986). Oxford (1990) also referred to these strategies as self-regulated learning strategies. Therefore this scale was used to assess the variable of self-regulated strategy use. SILL was chosen also because it has been continuously tested worldwide for its reliability and validity using more than 10 different languages involving more than 10,000 participants up to 1995 (McDonough, 2001; see Oxford & Burry-Stock, 1995, for a detailed discussion). The Cronbach alpha for internal consistency ranges from 0.93 to 0.98 (Green & Oxford, 1995).

SILL is a 50-item 5-point self-report questionnaire that was originally designed to assess the strategy use of students learning English as a second language (Oxford, 1990). Another version of SILL consists of 80 items and is especially designed for students learning English as a foreign language. However, the 50-Item SILL has been revised and tested in a foreign language
After a careful examination of the two versions, I decided to use the 50-item SILL because it does not have the redundancies as the 80-item version does.

The items were slightly adapted so that each item was more pertinent to the context of the study. Two items were deleted because one item was language-specific and did not apply to foreign languages with a non-alphabetical writing system (e.g., Chinese). The other item related to reading strategy was deleted because it did not apply well to students who were taking introductory foreign languages with limited reading skills. The word “English” in the scale was substituted with “the foreign language” and a note was given at the beginning of the questionnaire to remind students that it referred to the foreign language that he/she was learning in that class. Participants were also instructed to answer the questions based on the context of the course.

SILL includes six strategy categories: 1) memory strategies (e.g., I use a new word in a sentence so I can remember it.), 2) cognitive strategies (e.g., I find the meaning of a word by dividing it into parts that I understand.), 3) compensation strategies (e.g., I try to guess what the other person will say next in the foreign language.), 4) metacognitive strategies (e.g., I plan my schedule so I will have enough time to study the foreign language.), 5) emotional strategies (e.g., I try to relax when I feel afraid of using the foreign language.), and 6) social strategies (e.g., I ask people to correct me when I speak the foreign language.). All these strategy categories are covered in the self-regulated language learning strategy training material.

It was expected that students with task-involved goals, despite their perceived competence, would be more concerned about using strategies and make extra efforts to learn the strategies. Ego-goal orientated students with high perceived competence may also use some of the strategies. But they may tend to use superficial strategies (e.g., using flash cards) more than the deep processing strategies (e.g., paraphrasing). Ego-goal oriented students with low perceived competence may not use many of the strategies for two reasons. First, strategy use takes extra efforts at least before it becomes automated. Ego-goal oriented students tend to try to succeed with minimum effort so that success can be attributed to their ability. Or they may try to avoid failure by making least effort so that they can protect a negative evaluation of their ability or personal worth (Dweck, 1986; Covington & Omelich, 1979). Second, student with ego-goal orientation tend to believe the ability is fixed. They may not have a strong faith that competence can be increased by using strategies as students with task-goal orientation do (Dweck, 1986).

Achievement

Achievement in learning the foreign language was defined by the scores of the tests taken by the participants during the study. The tests were comprehensive and objective achievement tests that covered the material the students learned in the first four weeks of the semester. The tests included features such as vocabulary and grammar. The format of the tests across the languages was similar (e.g., filling blanks, recognizing vocabulary, reassemble simple sentences). None of the tests included speaking.
IV. Intervention

An intervention of language learning strategy training was used in the study to examine its effects on students’ self-regulated strategy use and achievement. The training material, entitled “Language Learning Strategies (LLS): A Self-Study Guide”, was designed as a self-study guide (see Material for details). There are two levels of this intervention. The students in the experimental group received strategy training on the first day of the study. The control group received the material at the end of the study. Making Language Learning Strategies available to the control group was intended to satisfy an ethical concern of using human subjects who could be otherwise deprived of any benefits of the training that the experimental group might have received.

V. Materials

There were two types of instructional materials in the study. The first type of material was the content material, which were the textbooks and other material that came with the textbook (e.g. audio-visual material, workbook, handouts) used for regular classes. The second type of material was the Language Learning Strategies (LLS) training brochure.

The strategies selected for the Language Learning Strategy brochure was based on the language learning strategies discussed by Oxford (1990). Oxford (1990) indicated that research had shown successful language learners use a variety of strategies. Based on previous research findings, she constructed an inventory of language learning strategies. This inventory includes six categories of strategies and specific techniques. They are 1) memory strategies, 2) cognitive strategies, 3) compensation strategies, 4) metacognitive strategies, 5) affective strategies, and 6) social strategies.

LLS was designed following these steps: 1) presenting information, 2) giving examples, 3) practicing, and 4) giving feedback. Keller’s (1983) ARCS motivation model (A: Attention; R: Relevance; C: Confidence; S: Satisfaction) was used to guide the instructional design process in order to make the material interesting to the user. ARCS were applied in the following way: A: Graphics relevant to the topic was used on the first page so that the brochure could attract the learners’ attention at a first glance and arouse their curiosity to learn. R: Relevance of the information to the reader was made clear at the outset of the guide. C: LLS was written using language easy for college students to read so that they could have confidence in learning it. S: Practice exercises and feedback were designed so that the learner could gain satisfaction in learning the material.

LLS presented each strategy category with specific techniques. Some techniques (e.g. imitating) were self-explanatory and no further explanations and examples were provided. For other techniques (e.g. using linguistic clues), explanations and specific examples were given. For each strategy category, practice exercises were provided and answers were given at the end of the self-study guide. A limitation of LLS was that not all examples used in LLS were language-
specific. An ideal situation would be to design the instruction with specific examples in the
language that students from each language were learning. However, as the learning strategies
apply across languages, it is assumed that the participants would transfer the strategies to the
specific foreign language that they were learning and they were reminded to do so in the
introduction of the instruction. They were also required to demonstrate that they could apply the
strategies to the language they were learning in the assignment required from them.

LLS was designed for English-speaking students who were learning a foreign language.
In the process of designing LLS, a one-to-one formative evaluation was conducted with college
students who shared characteristics (e.g. age, ethnic background, foreign language learning
experience, etc) similar to the participants of the study. The feedback was used to revise the
instruction.

VI. Data analysis

The alpha level for the data analysis procedure was set at 0.05 (a=0.05). This alpha level
was selected because it is the most commonly used alpha level in the behavioral science research
(J. Cohen, 1988; Kirk, 1994). A 2 x 2 x 2 factorial design with two levels of goal orientations,
two levels of perceived competence, and two levels of training conditions was used to analyze
the data. Analysis of variance (ANOVA) was chosen because the study intended to compare
group results. The participants were categorized according to their goal orientation (i.e. task-
involved verse ego-involved) and perceived competence (i.e. high verse low). ANOVA allows us
to compare group means with regard to their use of self-regulated learning strategy use and
achievement. ANOVA also allow the researcher to examine the interaction effects of goal
orientation and perceived competence.

In this chapter, I have discussed the research methods used in the present study with a
detailed report of participants, procedures, independent and dependent variables, measures,
instructional materials, interventions, and methods used to analyze data. The next chapter will
present the results of the present study.
CHAPTER IV
RESULTS

The study was intended to investigate the effects of goal orientations, perceived competence, and strategy training on college students’ use of self-regulated learning strategies and achievement in learning foreign languages. There were three independent variables: goal orientations with two levels (task-involved versus ego-involved), perceived competence with two levels (high versus low), and strategy training with two levels (training versus no training). Effects of these three independent variables on two dependent variables, use of self-regulated learning strategies and achievement, were examined.

As discussed at the end of Chapter II, six hypotheses evolved from the research questions and the literature review. For an easy review, Table 4.1 visually presents these hypotheses. For convenience of reference, task-involved goal orientation is labeled as TGO and ego-involved goal orientation is labeled as EGO. For the same reason, perceived competence is labeled as PC.

In the next few sections, I will present 1) the descriptive data by hypothesis, 2) a preliminary analysis of the data, and 3) the findings for each hypothesis from the data analysis.

Table 4.1: Hypotheses by independent and dependent variables

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Goal Orientations</th>
<th>Perceived Competence</th>
<th>Strategy Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy Use (SILL)</td>
<td>Hypothesis 1 &amp; 2</td>
<td>TGO students outperform EGO students</td>
<td>EGO &amp; high PC students outperform EGO &amp; low PC students</td>
<td>Students with training outperform students without</td>
</tr>
<tr>
<td>Achievement</td>
<td>Hypothesis 3 &amp; 4</td>
<td>TGO students outperform EGO students</td>
<td>EGO &amp; high PC students outperform EGO &amp; low PC students</td>
<td>Students with training outperform students without</td>
</tr>
</tbody>
</table>
I. Descriptive data by hypothesis

Hypothesis 1 & 2

Since the number of items for TGO in the goal orientation scale was equal to the number of items for EGO, students whose total score was higher on the TGO items than the EGO items were classified as task goal oriented (N = 61). Those whose total score was higher on the EGO items were classified as ego goal oriented (N = 40). Students with equal scores on TGO and EGO items were not included in the analysis (N = 12). In order to conduct one two-way ANOVA for Hypothesis 1, 2, 3, and 4, instead of doing two one-way ANOVAS, to examine the effects of goal orientation (Hypothesis 1 and 2) and the interaction effect (Hypothesis 3 and 4), students whose PC score fell on the median (median = 33) were not included in the analysis (N = 4). The advantage of doing this is that it reduces Type I error. This resulted in an exclusion of 16 participants. The final sample size used for this analysis was 101.

Table 4.2 presents a visual report of the descriptive data regarding hypothesis 1 and hypothesis 2. With regard to the strategy use (SILL), the mean by item of the TGO group is 3.47 (out of 5 points in the scale) with a standard deviation of 0.51. The mean of the EGO group is 3.25 with a standard deviation of 0.45. The mean of the total number of students is 3.38 with a standard deviation of 0.49. With regard to achievement, scores were standardized by using z-scores. The mean of the TGO group is -0.58 with a standard deviation of 1.06 while the mean of the EGO is 0.09 with a standard deviation of 0.89. The mean of the total number of students is 0.00 with a standard deviation of 0.99.

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>SILL</th>
<th>Achievement</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>TGO</td>
<td>3.47</td>
<td>0.51</td>
<td>61</td>
<td>-0.58</td>
</tr>
<tr>
<td>EGO</td>
<td>3.25</td>
<td>0.45</td>
<td>40</td>
<td>0.09</td>
</tr>
<tr>
<td>Total</td>
<td>3.38</td>
<td>0.49</td>
<td>101</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Note: Achievement scores are reported using standardized z-scores.

Hypothesis 3 & 4

Hypothesis 3 and 4 relate to the simple main effects of the two levels of perceived competence (high versus low) within ego-involved goal orientation. A median split (median =
33) was used to classify high PC group and low PC group. The lowest possible score in PC is 8 and the highest possible score is 40. Students whose PC score fell on the median and students who scored even on the two goal orientation scale were not included in the analysis. This resulted in an exclusion of 16 participants. The final sample used for this analysis was 101 students.

In order to conduct meaningful simple main effects of the two levels of PC and EGO, an overall interaction effect between goal orientations and perceived competence has to be present. Therefore, a statistic analysis of the overall interaction was first conducted at this point. The reason for this will be discussed later in this chapter in the reporting of findings regarding each hypothesis.

Table 4.3 presents the descriptive data of the two levels of goal orientation and the two levels of perceived competence on SILL. The mean by item of students with task-involved goal orientation and high perceived competence is 3.64 with a standard deviation of 0.51 (N=30). The mean of students with task-involved goal orientation and low perceived competence is 3.31 with a standard deviation of 0.47 (N=31). The mean of students with ego-involved goal orientation and high perceived competence is 3.51 with a standard deviation of 0.36 (N=18). The mean of students with ego-involved goal orientation and low perceived competence is 3.03 with a standard deviation of 0.41 (N=22).

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>Perceived Competence</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TGO</td>
<td></td>
<td>3.64</td>
<td>0.51</td>
<td>30</td>
<td>3.31</td>
<td>0.47</td>
<td>31</td>
<td>3.47</td>
<td>0.51</td>
<td>61</td>
</tr>
<tr>
<td>EGO</td>
<td></td>
<td>3.51</td>
<td>0.36</td>
<td>18</td>
<td>3.03</td>
<td>0.41</td>
<td>22</td>
<td>3.25</td>
<td>0.45</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.59</td>
<td>0.46</td>
<td>48</td>
<td>3.19</td>
<td>0.46</td>
<td>53</td>
<td>3.38</td>
<td>0.49</td>
<td>101</td>
</tr>
</tbody>
</table>

Table 4.4 presents the descriptive data of the two levels of goal orientation and the two levels of perceived competence on achievement. The mean of students with task-involved goal orientation and high perceived competence is 0.05 with a standard deviation of 0.99 (N=30). The mean of students with task-involved goal orientation and low perceived competence is -0.16 with a standard deviation of 1.13 (N=31). The mean of students with ego-involved goal orientation and high perceived competence is 0.25 with a standard deviation of 0.91 (N=18). The mean of students with ego-involved goal orientation and low perceived competence is -0.05 with a standard deviation of 0.88 (N=22).
Table 4.4 Achievement across goal orientations and perceived competence

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>Perceived Competence</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>TGO</td>
<td>0.05</td>
<td>0.99</td>
<td>30</td>
<td>-0.16</td>
<td>1.13</td>
<td>31</td>
</tr>
<tr>
<td>EGO</td>
<td>0.25</td>
<td>0.91</td>
<td>18</td>
<td>-0.05</td>
<td>0.88</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>0.13</td>
<td>0.96</td>
<td>48</td>
<td>-0.12</td>
<td>1.03</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 4.5 presents the ANOVA results of the interaction analysis of goal orientation and perceived competence on SILL. The main effects of goal orientations and perceived competence on strategy use were both significant (p<0.05). However, the interaction effect did not reach statistical significance. Since the overall interaction effect was not significant, no further analysis of simple main effect was pursued.

Table 4.5 ANOVA summary of effects of goal orientations and perceived competence on SILL and the interaction effects

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal Orientation</td>
<td>0.98</td>
<td>1</td>
<td>0.98</td>
<td>4.82</td>
<td>0.03</td>
</tr>
<tr>
<td>Perceived Competence</td>
<td>3.97</td>
<td>1</td>
<td>3.97</td>
<td>19.5</td>
<td>0.00</td>
</tr>
<tr>
<td>Goal Orientation X Perceived Competence</td>
<td>0.14</td>
<td>1</td>
<td>0.14</td>
<td>0.69</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Note: Computed using alpha = .05

Table 4.6 presents the ANOVA results of the interaction analysis of goal orientation and perceived competence on achievement. The main effects of goal orientations and perceived competence were not significant. Neither did the interaction effect reach statistical significance. Since the overall interaction effect was not significant (p >0.05) on achievement, no further analysis of simple main effect was pursued.
Hypothesis 5 & 6

Hypothesis 5 and 6 relate to the strategy training effects on college students’ use of self-regulated learning strategies and achievement in learning a foreign language. Table 4.7 presents a visual report of the descriptive data of these two hypotheses.

Regarding the training effects of SILL, the mean score of the students who received training (N = 58) is 3.47 with a standard deviation of 0.49. The mean of the students who didn’t receive training (N = 59) is 3.36 with a standard deviation of 0.53. The mean of the total number of students is 3.42 with a standard deviation of 0.51.

Regarding the training effects on achievement, the mean score of the students who received training (N = 58) is 0.12 with a standard deviation of 0.99. The mean of the students who didn’t receive training (N = 59) is -0.11 with a standard deviation of 0.99. The mean of the total number of students is 0.00 with a standard deviation of 0.99.

Table 4.6 ANOVA summary of effects of goal orientations and perceived competence on achievement and the interaction effects

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal Orientation</td>
<td>0.6</td>
<td>1</td>
<td>0.6</td>
<td>0.59</td>
<td>0.44</td>
</tr>
<tr>
<td>Perceived Competence</td>
<td>1.59</td>
<td>1</td>
<td>1.59</td>
<td>1.59</td>
<td>0.21</td>
</tr>
<tr>
<td>Goal Orientation x Perceived Competence</td>
<td>0.05</td>
<td>1</td>
<td>0.05</td>
<td>0.05</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Note: Computed using alpha = .05

Table 4.7 Mean and standard deviation of SILL and achievement across training conditions

<table>
<thead>
<tr>
<th>Experimental Condition</th>
<th>SILL</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Training</td>
<td>3.47</td>
<td>0.49</td>
</tr>
<tr>
<td>Control</td>
<td>3.36</td>
<td>0.53</td>
</tr>
<tr>
<td>Total</td>
<td>3.42</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Note: Achievement scores are reported using standardized z-scores.
II. Preliminary analysis

Outliers, missing data, sample examination

Two methods were used to identify outliers. First, items were built into the demographic questionnaires to identify outliers. For example, one item asks students whether they can read in the foreign language that they are learning in the class. If the answer is “yes”, they are required to answer the next item, which asks them to rate their reading skills from 1 (elementary) to 3 (advanced). Since all languages included in the study are at the first level of elementary classes, students who self-reported that they already knew how to read are considered outliers. Similar items were designed to ask about other basic language skills (i.e. speaking, listening, and writing) and outliers were excluded accordingly. Another way to identify outliers was by visually examining the histogram of the data using SPSS (Tate, 1998). No outliers were identified using this method. This resulted in a total number of 8 participants excluded from the data analysis. With respect of missing data, there are only a few cases in the self-report scale on SILL where a student missed circling a number for one item. This is dealt by averaging the student scores on the items in the subscale where the missing data occurred. Then the average score was used to substitute the missing data. This method was justified by Tate (1998).

Next I will discuss how representative the final sample is. On the first day of the experiment, human subject consent forms, demographic questionnaire, and perceived competence were distributed to all students across five different foreign languages who attended the class that day. Two hundred and sixteen students returned the form and questionnaire on that day. The number of students who participated in every aspect of the study was 125, resulting in a participating rate of 59%. The Russian students (N = 36) were not included in the final analysis because none of the students in the training group submitted the reflection paper, the assignment required to complete after they finished reading the training material. Since the study was also intended to make cross language comparison, all Russian students were excluded. So the actual participating rate is 69%. With 8 outliers excluded from the 125 actual participants, the final sample size was 117 participants. It is worth a note that more cases were dropped for specific analysis (e.g. students who scored even on goal orientations were dropped for Hypothesis 1 and 2).

An examination of the self-reported data on the demographic information and perceived competence from the students who did not participate in the whole study did not show any pattern of student characteristics who were excluded (e.g. extreme high PC, unanimously possessing prior experience in learning the foreign language being taught in the class). Therefore I consider the final sample still representative of the population of interest, that is, students learning a less commonly taught foreign language.

Preliminary analysis using the General Linear Model univariate procedure in SPSS was also conducted to examine whether there was any significant differences among the five instructors involved in the study. The result did not indicate a significant effect. This ruled out the possibility that any significant result found was due to the instructor effect. Preliminary analysis was also conducted to see whether there are any interaction effects of goal orientations and training as well as perceived competence and training. No interaction effects were found. This justifies using all participants in the training group to compare with the participants in the
control group without concern of confounding effects of goal orientations and perceived competence.

Examination of ANOVA assumptions

To use ANOVA to analyze the results, major assumptions relate to this statistical procedure were first examined. The following discusses these major assumptions as related to each hypothesis.

Hypothesis 1, 2, 3, & 4. First, ANOVA assumes that the sample size of the groups formed by the independent variable is relatively equal or similar in size. However, this is rather robust when the sample size is bigger than 12 (n >12) in each group (Kirk, 1994), which is the case in the analysis related to the first hypothesis. Second, each group of the independent variable has similar variances on the dependent variable. For SILL, the null hypothesis is not rejected since the Levene’s test of homogeneity of is not significant, $F (3, 97) = 1.09, p = 0.36$. Therefore, this assumption is not violated. For achievement, this assumption also holds as the Levene’s test of homogeneity of is insignificant, $F (3, 97) = 0.26, p = 0.89$.

ANOVA also assumes that the dependent variable for each group is normally distributed (Kirk, 1994). An inspection of the histogram generated for the dependent variable of SILL using SPSS did not indicates a violation of this assumption. The visual inspection indicated a slight violation of this assumption with regard to achievement. However, according to Tate (1998), ANOVA, as a special case in general linear model, is fairly robust to this assumption.

Hypothesis 5 & 6. For the same reason above, the sample size assumption is not violated for hypothesis 5 and 6. The assumption of similar variance on the dependent variable is also maintained. The Levene’s test of homogeneity of is not significant on SILL, $F (1, 115) = 0.02, p = 0.89$. So is the case with achievement, $F (1, 115) = 0.29, p = 0.59$.

An inspection of the histogram generated for the dependent variable of SILL using SPSS did not indicates a violation of this assumption. The visual inspection indicated a slight violation of this assumption with regard to achievement. However, ANOVA was used for the same reason discussed before.

III. Testing of hypotheses

Hypothesis 1, 2, 3, & 4

A two-way ANOVA was conducted to 1) examine whether there was any significant difference between the group means of the students with TGO and those with EGO on the use of self-regulated learning strategies and 2) whether there was an interaction effect of goal orientations and perceived competence (see Table 4.5 for an ANOVA summary). The results indicated that the mean score by item of TGO students ($M = 3.47, SD = 0.51$) was significantly higher, $F (1, 99) = 5.04, p <0.05$, than that of ego-goal orientated students ($M = 3.25, SD = 0.45$). The result supported the first hypothesis. It is worth a note that the results also indicate a
significant difference between students with high PC and students with Low PC on their use of self-regulated strategies.

To examine whether there was any significant difference between the group means of the students with TGO and those with EGO on achievement (see Table 4.2 for descriptive data), the achievement scores of student across the four different foreign languages were first standardized into z-scores. This was done because the test scores came from different sources. In other words, there were from different languages taught by different instructors. It was impossible to make comparisons using raw scores from such different sources. Standardizing the scores made the comparison possible and more accurate (Brewer, 1996).

The results showed that the mean of the students with TGO (M = -0.03, SD = 1.01) was lower than that of the students with EGO (M = 0.11, SD = 0.89), failing to support the second hypothesis (see Table 4.6 for an ANOVA summary). This result is in the opposite direction than what was expected by the hypothesis. However, the difference could be due to random variations given that it did not reach statistical significance.

Hypothesis 3 and 4 relate to the simple main effects of the two levels of perceived competence (high versus low) within ego-involved goal orientation. To find out whether perceived competence had a moderating effect on students with ego-involved goal orientation, an overall interaction effect between goal orientations and perceived competence has to be present before further analysis of simple main effects. According to Kirk (1994), if no overall interaction was found, there might be two possible cases for the simple main effects. One may be that all simple main effects are not significant. The other may be that all simple main effects are significant. This does not add any information to the simple main effects of perceived competence on ego-involved goal orientation. The results could simply be due to the effects of perceived competence rather than the interaction effects of goal orientation and perceived competence.

Table 4.5 presents the result of the analysis of the interaction effects on the strategy use. Table 4.6 presents the result of this analysis on student achievement. Since neither of the overall interaction effects was significant (p>0.05), no further analysis of simple main effect was pursued. The result failed to support the hypotheses.

Hypothesis 5 & 6

Hypothesis 5 and 6 are related to the effects of training on student use of self-regulated learning strategies and achievement, respectively, in learning a foreign language. Two one-way ANOVA were conducted (see Table 4.7 for descriptive data). The students in the training group reported more use of self-regulated strategies (M =3.47, SD = 0.49) than those in the control group (M = 3.36, SD = 0.53). However the difference did not reach statistical significance. The mean score on achievement of students in the training group (M = 0.12, SD = 0.99) was also higher than that of the students in the control group (M = -0.11, SD = 0.99), but the difference was not statistically significant. The results failed to support both hypotheses.

This chapter reported the descriptive data according to each hypothesis, the preliminary analysis and the results of the test of each hypothesis. A cross language comparison was initially planned to examine whether there would be any different effects of the goal orientations and perceived competence for students learning different languages with regard to their use of self-regulated learning strategies and achievement. However, due to too small sample sizes and
unequal cells, I was unable to make such comparisons. For example, when I tried to make comparison between students with task-involved goal orientation in Arabic and students with the same goal orientation in Japanese, the sample size for Arabic and Japanese was N= 7 and N= 25 respectively. When I tried to compare students with ego-involved goal orientation, the same problem occurred but the number would reverse, with bigger number in Arabic (N=15) and smaller number in Japanese (N=7). Due to this situation, no comparison was made.
CHAPTER V

DISCUSSION

I. Overview

The first two hypotheses of the study concern about the effects of goal orientations on student use of self-regulated learning strategies and achievement in learning a foreign language. I expected to find that students with task-involved goal orientations, despite of their perceived competence, would use more self-regulated learning strategies and achieve more in course related assessments than students with ego-involved goal orientation. The third and the fourth hypotheses are related to the interaction effect of goal orientations and perceived competence. I expected to see that students with ego-involved goal orientation and high perceived competence would use more self-regulated learning strategies and achieve more than students with the same goal orientation but low perceived competence. The last two hypotheses are associated with strategy training. It was expected that students who received self-regulated language learning strategies would use more self-regulated learning strategies and also achieve more than students who did not receive training.

Supporting the first hypothesis that students with task-involved goal orientation would use more self-regulated learning strategies than students with ego-involved goal orientation, the mean scores of students in the former goal condition (M = 3.47, SD = 0.51) was significantly higher than students in the latter goal condition (M = 3.25, SD = 0.45). The second hypothesis was not supported by the data, with the mean score of the students with task-involved goal orientation (M = -0.03) being slightly lower than the mean score of the students with ego-involved goal orientation (M = 0.11).

The data indicated that the main effect of both goal orientations and perceived competence on student strategy use was significant but the interaction effect failed to emerge (see Table 4.5), although the mean score of strategy use of the students with ego-involved goal orientation and high perceived competence (M = 168.56) was higher than that of the students with ego-involved goal orientation and low perceived competence (M = 145.36, see Table 4.3). The data failed to show any main effect of goal orientations and perceived competence on student achievement. Nor was the interaction effect significant (see Table 4.6), although the mean achievement score of students with ego-involved goal orientation and high perceived competence (M = 0.25) was higher than that of students with the same goal orientation but low perceived competence (M = -.05, see Table 4.4). The data failed to support the third and the fourth hypothesis.

Statistical support for the last two hypotheses was not found. Although the students who received self-regulated strategy training scored higher on both the strategy use (M =3.47 versus M = 3.36) and the achievement (M = 0.12 versus M = -.0.11) than those in the control group (see Table 4.7), the result did not reach statistical significance. More detailed discussion of the findings comes next.
II. Effects of goal orientations

The first four hypotheses of the study are concerned with the effects of goal orientations and their interaction effect with perceived competence on student use of self-regulated learning strategies and achievement in learning a foreign language. This was based on Dweck’s (1986) theoretical motivational model of goal orientations and perceived competence and similar theories of other goal orientation theorists (Nicholls, 1984; Ames & Ames, 1984; Ames, 1992). The first hypothesis states that students with task-involved goal orientation, despite their perceived competence, will use more self-regulated learning strategies than students with ego-involved goal orientation. The finding from the study supported this hypothesis. This finding is consonant with the theoretical predictions by Dweck (1986), the findings from earlier laboratory experiments (Elliot & Dweck, 1988) based on the theoretical motivational model, as well as from field evidence (Ames & Archer, 1988).

Goal theorists argue that in achievement settings students are engaged in goal-oriented activities. When individual students are oriented toward the goal of learning (i.e. task-involved goal orientation), they are concerned with developing competence through efforts and strategy use. Ames & Archer (1988) found that these students used more general self-regulated learning strategies (e.g. setting up goals, monitoring progresses). Task-oriented individuals tend to be more challenge seeking, and persist more effectively in the face of difficulties (Dweck, 1986; Elliot & Dweck, 1988). They are concerned with how they can acquire the knowledge or skills. Therefore, they try to focus on using effective strategies. In times of failure, they will not attribute it to a lack of ability, but rather, they will use the negative feedback to improve their learning strategies and intensify their efforts. Achievement behaviors such as making efforts, using strategy, seeking challenge, persisting in the face of obstacles are characteristic of task-involved individuals. These learning behaviors are particularly critical in the unique context of foreign language learning (see Literature Review for a more detailed discussion). For instance, language learning in the classroom context requires a lot of peer interaction and student-teacher interaction, especially in the current foreign language classroom where Communicative Approach of language teaching is used. Under this approach, how students perform is immediate made public. Just like a child learning the first language, an adult learning a foreign language will inevitably make mistakes during the interaction in the classroom. To students who are task-orientated, they will not view the mistakes as an indication of a lack of ability. Instead they will use it to improve learning by finding more effective strategies and making more efforts. This may not be true of students who are ego-orientated.

Individual students who possess ego-involved goal orientation are concerned with demonstrating ability superior to others, documenting their ability or avoid negative evaluation of their ability. Although some research findings indicated that both students with task-involved and ego-involved goal orientations valued strategy use (Ames & Archer, 1988), students with ego-goal orientation may be more concerned about short-term information retention strategies (Meece, 1988) and other superficial information processing strategies, such as repetition, than deep information processing strategies, such as reorganizing information, anchoring new information to prior knowledge (Winnie, 2001; Zimmerman, 2001). Students who are ego-oriented and low perceived competence are more vulnerable to a maladaptive motivational tendency, that is, a “helpless” pattern of approaching learning. These individuals tend to avoid
challenge, and show low persistence in the face of obstacles. They also tend to see efforts as inversely related to ability. They may view failure as an indictment of their low ability. This way of thinking and beliefs may not support subsequent effort. Therefore, instead of using the negative feedback to improve strategy use and intensify efforts, they may adopt defensive learning strategies, such as making less effort in order to look able, thus protecting their ego and self-worth (Covington & Omelich, 1979, 1984). While efforts are critical in the long process of acquiring a foreign language for adult learners, not viewing effort-making constructively can be debilitating to learning.

Researching findings indicate that even though students do not differ in their cognitive abilities or intelligence, different goal orientations will differentially activate either adaptive or maladaptive motivational processes that will affect student achievement and achievement behavior in pursuing cognitive tasks (Dweck, 1986; Elliot & Dweck, 1988). Each of these goal orientations may create its own concerns and way of thinking that makes information processing different.

Consonant with the theoretical postulations (Dweck, 1986), earlier laboratory findings (Elliot & Dweck, 1988), as well as evidence from naturalistic studies (Ames & Archer, 1988), the findings from the present study supported the hypothesis that students with task-involved goal orientations, regardless of their perceived competence, use more self-regulated learning strategies in a learning foreign language. However, the data failed to support the second hypothesis that stated the former would also achieve more than the latter. There may be a few possible explanations for this. First, the study was conducted at the beginning (the second to the fourth week) of introductory foreign language courses. Students may have not learned enough knowledge and skills that truly reflect their achievement in learning. Second, the study was conducted using 10 classes across five different foreign languages. It was impossible to use the same assessments to evaluate student achievement. Although the assessments across languages assess similar concepts (e.g. vocabulary, grammar) and achievement scores were standardized in the final analysis to make comparison across languages possible, the lack of one standardized assessment instrument may still affect the findings, posing a threat to the internal validity of the study. Third, although each language uses the same assessments within the language and only the scores of tests from each language were used in the final analysis, the tests across the languages were administered at different times during the three-week experiment, which was out of the control of the researcher. This may also have affected the achievement scores in that some students may not have internalized or applied some strategies taught in the instructional material in time for them to have an effect on their test performance.

On the other hand, the lack of support for the hypothesis from the findings of the achievement seems to have lent support to the more recent findings by Harackiewicz, et al. (1997). Harackiewicz and his associates did a correlational study in the field using college students taking an introductory psychology course. They found that students who were task-involved demonstrated more intrinsic interest in the course whereas students who were ego-involved achieved more in terms of course grades. This study was similar to my study in that it was done in the field and the achievement was similarly defined. However, the achievement in the Harackiewicz, et al. study also included course assignments, which could pose more serious threats to the internal validity of the study.

Given that Harackiewicz, et al. found that students with task-involved goal orientations demonstrated higher intrinsic interest in the course, the lack of support for a higher achievement
in task-oriented students in the study by Harackiewicz, et al. may also face a challenge of alternative explanations. For instance, even though students with ego-goal orientations achieved more in an introductory psychology course than students with task-goal orientations, are they likely to continue to achieve more in later more advanced psychological classes? Considering the importance of intrinsic interest in continuing motivation of learning, such as sustaining efforts (Harackiewicz & A. J. Elliot, 1993; Harackiewicz, et al., 1997), is it likely that these students will outperform those with ego-goal orientations later in their course work?

It is possible that students with ego-involved goal orientations will do better, as reflected by grades, than students with task-involved goal orientations in course-related achievement tests. This is because in the context of classroom study, all students are under some pressure of doing well on the tests. This pressure might work against students who have task-involved goal orientations and interfere with their performance. Future research may examine this possibility and also investigate whether these students will also do better using more standardized tests.

While I cannot rule out the possibility that the lack of support for the hypothesis may also pose a challenge to the original theory proposed by Dweck (1986), more different types of research (e.g. longitudinal studies) using different methods and more rigorous and standardized achievement tests may be needed to answer these questions I just raised before any conclusions can be drawn. Since self-regulated learning strategies are so important in the current context for foreign language learning and research findings have shown the successful language learners use a variety of them (see Literature Review for a detailed discussion), I tend to believe that students with task-involved goal orientations, who were found to use more strategies in previous research and in the present study I conducted, may also achieve more in the long run.

III. Interaction of goal orientations and perceived competence

The goal theory proposed by Dweck (1986) predicts that students with task-involved goal orientations, despite their perceived ability, would demonstrate more adaptive motivational patterns in task choice, persistence in times of difficulties and task performance. These individuals are not concerned about external judgments of their current ability. Instead, they believe that competence or ability can increase with efforts and strategy use. Therefore their attention and energy are focused on learning. Contrary to this, students with ego-involved goal orientations are concerned about external judgments of their ability. Their goal is to demonstrate normative higher ability or avoid negative evaluation of their ability when they perceive chances of success are low. Dweck (1986) argued that when these individuals perceive their ability as high, they may demonstrate similar adaptive motivational patterns to that of the task-involved individuals. Yet even these individuals may sacrifice opportunities of learning when the learning task involves a risk of failure. For individuals with this goal orientation and low perceived competence, they are especially vulnerable to a helpless pattern of learning behavior, especially when facing challenge or failure. They tend to avoid making efforts. They may not try to learn or apply learning strategies, which requires efforts and which may work against their ego-involved goal.

The interaction of goal orientations and perceived competence proposed in Dweck’s theoretical model has been tested in laboratory studies (Elliot & Dweck, 1988; Dweck &
Leggett, 1988) and the prediction was supported by the findings. These studies manipulated school children’s goal orientation and perceived competence and assessed their motivation and behavior in learning. The tasks used in these studies were specific and novel to the children. Findings from more recent field studies (Miller, et al., 1993; Kaplan & Midgley, 1997) tested the interaction effect and either failed to find support or found contradictory results.

The present study predicted an interaction effect for a few reasons. First, Dweck (1986) had convincing arguments and earlier laboratory studies supported the prediction. Second, although more recent studies (Miller, et al., 1993; Kaplan & Midgley, 1997; Harackiewicz, et al., 1997) cast doubt on earlier theory and research findings, there was serious inconsistence between the earlier theory and research and the more recent field studies. For example, perceived competence in the original theory of Dweck (1986) refers to the ability that individuals believe in their current ability to accomplish specific tasks in the near future. Earlier laboratory studies also assessed the children’s perceived ability before they were actually engaged in the task. However, in the study by Miller, et al., perceived ability was assessed at the end of the course, the same time measures of other variables (e.g. goal orientations, values, self-regulatory activities) were taken. So perceived competence in these studies were not operationalized the same.

For another example, in the study by Kaplan and Midgley, there was a flaw in their method used to analyze the data. After the study failed to find a main interaction effect of goal orientations and perceived competence, further analysis of simple effect would be meaningless because the simple effect would be either all significant or all non-significant (Kirk, 1994). However, the researchers conducted further analysis and found contradictory result that indicated perceived competence had a mediating effect under the task-involved goal orientation. The analytical method used was problematic, rendering the finding spurious. The finding may have been the effect from one single factor instead of an interaction effect (see Results for a more detailed discussion).

Finally the present study intended to test in the field the original predictions and earlier laboratory findings. Nevertheless, the interaction effect expected failed to emerge from the data collected in the present study. There may be a few explanations. First of all, the median (33 out of 40) split method used to dichotomize high perceived competence and low perceived competence, although used by previous research (Miller, et al., 1993; Kaplan & Midgley, 1997), may have artificially categorized students into two groups. In the present study, the scores of perceived competence ranged from 18 to 40 points with the median of 33. Students scored lower than 33 points were labeled as low perceived competence while those above were labeled high perceived competence. Compared to the total points of 40, 33 was a high number. Most students in this sample are of fairly high perceived competence. Should another method be used to categorize the high and low perceived method, some of the students in the low perceived competence in this study might be in the high PC category. In that case, the result could have been different. There also seems to be a ceiling effect (with median being 33 out of a total of 40) of students’ scores on perceived competence. The students in the study may not be representative of undergraduate students, for instance, those who take the courses as a requirement. The ceiling effect of the perceived competence might have masked the interaction effect of perceived competence and goal orientation.

Second, similar issue seems to be related to the categorization of goal orientations. Some students scored either high or low on both goals, and yet they were artificially categorized into either task-involved goal orientation or ego-involved goal orientation. In addition, the students in
this sample seem to have stronger task-involved goal orientation (M = 16.1) than ego-involved goal orientation (M = 14.9). Students strong in both goal orientations and most students being generally strong in task-involved goal orientation might have confounded the findings. Finally the data may also suggest a necessity to reconceptualize Dweck’s original theory and reexamine earlier laboratory findings. Earlier theory and studies all involved school children. The same theory may not apply as well to college students who may have developed more stable orientations and perceived competence toward certain subjects or tasks. In addition, the tasks employed in the laboratory settings (e.g. identifying geometrical patterns in Elliot and Dweck’s study in 1988) were novel and very specific to the children involved in the research. In this case, it was probably easier for children to judge their perceived ability. It could also be that, despite the fact that arguments in the original theory sounded reasonable and convincing, laboratory findings were spurious because the researcher either did not indicate there was a manipulation check or whether the manipulation was successful.

In summation, regarding the interaction effect of goal orientations and perceived competence, conclusions seem to be unlikely from the present study. More research is needed using different research methods, participants of various characteristics, and different learning contexts.

IV. Effects of strategy training

Although the data from the present study indicated that students who received training used more strategies (M = 3.47, SD = 0.49) than students who did not receive training (M = 3.36, SD = 0.53) and the former also scored higher on achievement (M = 0.12, SD = 0.99) than the latter (M = -0.11, SD = 0.99), the result did not reach statistical significance. Here are a few possible explanations. First, the training material is a self-study guide. I required the participants to complete a reflection paper after they finished reading the study guide and the reflection paper did indicate that those who turned in the assignment had studied the material. Even so, since the material and the assignment were not closely tied up to their course work, it is unknown how serious participants were in their later application of the strategies. There exists an issue of transfer of strategies.

Second, the three-week experiment and the regular classes were interrupted by two serious hurricanes and school had to be closed for one day after each hurricane, thus bringing a history effect to the study that may have confounded the findings. It is not known how this might have affected student regular study and the experiment. It was possible that the instructors were trying to catch up lost class time and had to speed up regular teaching after each hurricane. At the same time, the students may have gotten so busy trying to catch up with schoolwork that they may have forgotten about the strategies taught in the material. I did not do any follow-up interviews of the instructors and students about this due to concern of intrusion to regular classes and addition to the work burden of both the students and the instructors.

Finally the treatment may not have been strong enough to produce any significant result. The ideal situation of the self-study guide is to make the explanations of the strategies and the practice items language specific so that it is easier for the students to transfer. For example, when explaining about how to use linguistic rules to guess the meaning of unknown words, students of
Arabic may find application easier if the examples were given in Arabic. However, because the experiment was conducted across five different foreign languages, I was unable to do so due to my constraint of foreign language ability. As a compromise, the material was written in English and used mostly examples from the English language. Considering the constraints of the experiment regarding strategy training discussed above, the gains in both strategy use and achievement of students who received training, and the importance of using strategies in learning foreign languages, more research may be worth pursuing in this area using more effective training material and stronger treatment context such as making learning the material part of the course requirement.

V. Limitations

During my informal conversations with the instructors involved in the study, they claimed that their teaching method is more of a Communication Approach rather than traditional method and their classroom instructions emphasized learning rather than grades. There has also been some research that indicates teaching method used by the instructor may either facilitate the use of functional learning strategies or suppress it (Oxford & Nyikos, 1989). Functional learning strategies refers to strategies that focus on learning how to communicate such as finding opportunities to talk to native speakers. As I did not conduct classroom observations to see whether actual classroom instructions and activities were consistent with what the instructors claimed, this could pose a threat to the internal validity of the study because some instructors may not practice what they claimed to be practicing. The actual use of different instructional approaches could be a confounding variable that affected the dependent measures, threatening the internal validity of the study.

As mentioned earlier, the study was interrupted by two serious hurricanes, which caused the school to close one day after each hurricane. This affected the instructional time of the class. The effect of the hurricane on the study was unknown and this history effect could also be a threat to the internal validity of the study.

Another limitation of the study is that, although at the beginning of the study, the questionnaires and instructional materials were distributed to all students in the ten classes, only the data from those students who turned in their assignments after they self-studied the self-regulated strategy booklet were included in the final analysis. And although I did not find any patterns of the students whose data were not used, the final participants could still to some extent be considered volunteers. This could be a threat to the external validity of the study, limiting its generalizability. In addition, the study was conducted with students learning less commonly taught foreign languages in the southern United States. This may limit its generalizability to all students learning other more commonly taught foreign languages, such as French, in the northern America.

Due to the nature of the study as quasi-experimental, the homogeneity of the groups was assumed considering the fact the all participants were at the beginning of learning a new foreign language. However, it was difficult to find out how different or similar the groups were in reality. This is a limitation of doing a quasi-experimental study.
VI. Implications and conclusions

The findings from the present study support Dweck’s (1986) theoretical predictions and are consistent with the findings from earlier laboratory research (Elliot & Dweck, 1988) and field study (Ames & Archer, 1988) that students with task-involved goal orientations, despite their levels of perceived competence, will use more learning strategies than students who have ego-involved goal orientation. This may imply that foreign language classroom instructions should pay more attention to what may influence student goal orientation. For example, even though most foreign language instructors (e.g. the instructors in the present study) claim to orient students to focus on learning, normative grading at undergraduate level still prevails. Students are aware that the evaluation of their performance will depend on the performance of their peers. This evaluation method or policy may not be conducive to learning a foreign language because when students are orientated toward grades, their ego are involved, which is detrimental to sustaining their motivation in the long run. The evaluation method or policy should be improved in foreign language education.

Another implication is that classroom should use more small group work so that students who are ego-oriented find their ego less threatened. There have also been some research findings (Meece, et al., 1988) that indicate that students are more task-oriented when they work in small groups. This is reasonable, especially when making errors is a must in the process of acquiring foreign language knowledge and skills. Making mistakes in small group may be less threatening to the ego than making mistakes in front of the whole class. For ego-oriented students, small group activities may provide a learning environment where they can free the cognitive energy directed to ego to the learning task itself. Class activities or assignments may also need to be designed so that students can have more attempts in trying until they have successfully acquired the skill. For example, the instructor may allow the students to resubmit the assignment a few times so that students could use the feedback to improve their work. By doing this, students’ attention could be drawn toward the task, rather than their ego.

According to Dweck (1986), children’s theories of intelligence seem to affect their goal orientations: Those who have an “entity” theory of intelligence believe that it is a fixed trait. They tend to ego-oriented in achievement settings, trying to gain favorable judgment of that trait. On the other hand, children who believe intelligence is a malleable quality tend to be task-goal oriented in learning and try to develop intelligence through learning. These goal orientations may set up the different behavior patterns. While this was assumed in the present study, future research may pursue to find out whether college students, as adults, in reality share this theory of intelligence that children have, as Dweck claimed. If so, instructions may be designed to influence a change of the “entity” theory that college students may hold.

There has also been research that indicates student prior experience of learning a foreign language affects their beliefs of strategy use (Elbaum, et al., 1993). Students who have studied a foreign language in an immersion program or in a foreign language community have stronger beliefs in functional learning strategies, that is, strategies that focus on learning how to communicate such as finding opportunities to talk to native speakers. Students who have studied under traditional language instructional environment have stronger beliefs in formal learning strategies, that is, strategies that focus on learning vocabulary, grammatical knowledge such as memorizing (Oxford & Nyikos, 1989). However, the research did not investigate whether prior
experience affected student actual use of learning strategies. The questionnaire used in the present study to assess strategy use includes both functional and formal language learning strategies. Future research could use prior experience of foreign language learning as a covariate and investigate how goal orientations affect student strategy use controlling the effect of prior experience.

Some research (Green & Oxford, 1995) also indicate that use of strategies is correlated with student proficiency level in a foreign language, with students of higher level proficiency using more strategies assessed by SILL than those of lower level proficiency. The present study did not look at this issue since it was conducted with students in beginning foreign languages. It was assumed that everyone started with basically the same proficiency level. Future research using students in higher levels of a foreign language could examine whether the effects of goal orientation on strategy use would be significant controlling the student proficiency level.

Another interesting incidental finding from the study may also be a topic of future inquiry. The data indicates that there is a greater number of task-oriented students learning Asian languages (Chinese: 62%; Japanese: 76%) than Middle East (Arabic: 25%) and European languages (German: 39%) in the present study. Future research can further investigate whether this is also true in other foreign language learning settings. Research can examine whether goal orientations, perceived competence, and strategy training differently affect student achievement behavior and achievement within predominantly task-orientated students learning Asian languages and within predominantly ego-oriented students learning other foreign languages.

Finally, as mentioned before, future research may use more effective training material and a more controlled method to investigate the effect of self-regulated strategy training. I hope that the present study was a contribution to SL/FL acquisition research by experimentally implementing an intervention of self-regulated strategy training.
APPENDIX A

HUMAN SUBJECTS INFORMED CONSENT FORMED AND APPROVAL LETTER
INFORMED CONSENT FORM

Informed Consent Form

I freely, voluntarily and without element of force or coercion, consent to be a participant in the research project for a dissertation entitled “How Goal Orientations, Perceived Competence, and Strategy Training Affect College Students’ Use of Self-regulated Learning Strategies and Achievement in Learning Foreign Languages.”

The researcher of this study is Ling Xiao, a doctoral student in the Department of Educational Psychology and Learning Systems at the Florida State University. I understand the purpose of her research is to better understand how goal orientations, perceived competence, and strategy training might affect college students’ achievement and achievement behavior in learning foreign languages. I understand that if I participate in the research I will be asked general information about myself and my experience with a foreign language. I will be asked to fill out paper and pencil questionnaires about my goal orientations, perceived competence in this course, and use of learning strategies. In addition, I will release my course performance records (e.g. test scores) to the researcher. All my answers to the questionnaires and my performance records will be kept strictly confidential to the researcher only. The last four digits of my social security number will only be used for identification purposes and data analysis. No individual responses will be reported. Only group findings will be reported.

I understand there are benefits for participating in this research. Being provided with training in language learning strategies may benefit me in learning the foreign language during the study and after the study. My participation may also contribute to the knowledge of how goal orientations, perceived competence, and language strategy training could affect student achievement and achievement behavior. The findings could be beneficial to all language learners in the future including myself.

I understand that 1) the time span of the research study is 6 weeks, 2) my participation is totally voluntary, 3) I may stop participation and this consent may be withdrawn at any time without prejudice or penalty, 4) the risk is minimized if I agree to participate in this study, 5) I have been given the right to ask and have answered any inquiry concerning the study, and 6) Questions have been answered to my satisfaction.

I understand that I may contact Ling Xiao, Department of Educational Psychology and Learning Systems, Florida State University, by e-mail at bx5161@garnet.fsu.edu or by phone (850) 574-6552 (b) or (850) 644-5793 (w), for answers to any further questions about this research or my rights. Group results will be sent to me upon my request.

I understand I may contact Dr. John Keller, Ling Xiao’s major professor, by e-mail at ikeller@mailbox.fsu.edu or by phone at (850) 644-8790 for any questions or concerns.

I understand I may contact the Human Subject Committee at the Florida State University at (850) 644-8836 for any questions or concerns.

I have read and understand this consent form.

Your name (please print)

[Signature]

Date

Your signature
APPROVAL LETTER FROM HUMAN SUBJECTS COMMITTEE

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2763
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 7/29/2004

To:
Ling Xia
MC: 2550

Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: John Tomkowiak, Chair

Re: Use of Human Subjects in Research
How Goal Orientations, Perceived Competence, and Strategy Training Affect College Students’ Use of Self-regulated Learning Strategies and Achievement in Learning a Foreign Language

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by 7/28/2005 you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: John Keller
HSC No: 2004.498
APPENDIX B

DEMOGRAPHIC INFORMATION
DEMOGRAPHIC INFORMATION

Note: The “foreign language” in this questionnaire refers to the language you are learning in this course.

Directions: This demographic information is collected for the purpose of identification and analysis of the research data ONLY. All information will be kept strictly confidential. Please provide the answer that best describes you.

1. (Please print) Name _______________________________

2. Gender (circle one):      Male      Female

3. Age: __________

4. Grade level (circle one):      Freshman      Junior      Sophomore      Senior      Other (specify) ___________________

5. Ethnic background (circle one):      African-American      Asian-American      Hispanic      White-American      Other (specify) ______________

7. Does anyone speak the foreign language in your home?      Yes      No
   If yes, how would you rate your listening comprehension skill?      Elementary      Intermediate      Advanced

8. Can you speak the foreign language?      Yes      No
   If yes, how would you rate your speaking skill?      Elementary      Intermediate      Advanced

9. Can you read in the foreign language?      Yes      No
   If yes, how would you rate your reading skill?      Elementary      Intermediate      Advanced

10. Can you write in the foreign language?      Yes      No
    If yes, how would you rate your writing skill?      Elementary      Intermediate      Advanced

11. Do you have any previous experience learning the foreign language?      Yes      No
    If yes, please give a bit more detail (e.g. how did you learn it? How long?).
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

12. Reasons for taking this course (circle Yes or No for each item).

   1) Fulfills academic requirement       Yes      No
   2) Content seems interesting       Yes      No
   3) Is required of all students in the department/program       Yes      No
   4) Will be useful to me in other courses       Yes      No
   5) Is an easy elective       Yes      No
   6) Will help improve my academic skills       Yes      No
   7) Was recommended by a friend       Yes      No
   8) Was recommended by a counselor       Yes      No
   9) Will improve career prospects       Yes      No
  10) Fit into my schedule       Yes      No
APPENDIX C

PERCEIVED COMPETENCE QUESTIONNAIRE
PERCEIVED COMPETENCE QUESTIONNAIRE

Last 4 digits of your Social Security Number _________________

Directions: Please rate how strong you agree or disagree with each of the following statements regarding this course. Do not answer how you think you should be, or what other people think of you. Remember there is no right or wrong answer. Just answer as accurately as possible. If you strongly agree with a statement, circle 5; if you strongly disagree with a statement, circle 1; if you feel somewhere in between strongly agree and strongly disagree, find the number between 2 and 4 that best describes how you feel. The last four digits of your social security number are for identification purpose ONLY. Your answers will be kept strictly confidential.

Remember: 1 2 3 4 5
Strong disagree ........................................................................Strongly agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strong disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe that I can receive an excellent grade in this course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I'm certain I can understand the most difficult material taught in this course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I am confident I can understand the basic things taught in this course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I think I'm a good student compared with others in this class.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I think I will receive a good grade in this class.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I think my study skills are excellent compared with others in this class.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. I know that I will be able to learn the material in this course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. I am confident I can do an excellent job on the assignments and tests in this course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D

LANGUAGE LEARNING STRATEGIES (LLS)
VI. Social Strategies

Language learning is different from learning other subjects. You need to learn it through social interaction, which makes social strategies necessary. The following strategies may be helpful:

- Asking for clarification, verification, correction
- Cooperating with peers & instructors
- Becoming sensitive to others' feelings
- Developing cultural understanding of the people speaking the language you're learning.

Practice:

8. Find out the expressions used to ask for clarification, verification, and correction in the language you are learning. Memorize them and practice!

9. Give some examples of how to develop cultural understanding of the people who speak the language you are learning.

Hope you have enjoyed reading LLS - a self-study guide!

A special invitation just for YOU...

LLS invites you to come back and revisit!

Answer Keys

1. The letter "r" in the word looks like a spout. Spring is the time of the year when things spring out. So "r" - spout - spring - vernal. Can you use the letter "r" as a clue?

2. (Share your answer with someone else's)

3. (Share your answer with someone else's)

4. Your instructor, proficient peers, native speakers

5. The second one might be more effective because it is more specific and proximal.

6. 众 means "many people". How about the word "森" where "木" means "tree"? (Answer: forest).

7. Tell yourself: No big deal...and laugh!

8. Here are some examples in English: Do you mean ...? Is this correct? Can you tell me whether ... is correct?

9. Watching movies in the foreign language you're learning, associating with native speakers, joining language clubs, participating in organized cultural activities, reading books and articles about the customs of the native speakers

Reference:

I. Memory Strategies

Research indicates that our memory works like networks. If different information is linked in some way, it is easier to remember and to retrieve. Memory strategies (see the following diagram) help you create networks of learning.

![Memory Strategies Diagram]

- Categorizing: This means putting words into categories. Suppose you have learned: house, kitchen, parents, siblings. You may categorize them into: 1) people: parents, siblings 2) place: house, kitchen. Can you think of another way to categorize them?
- Association: This refers to linking meanings of words or ideas with mental pictures or prior knowledge. For example, you may associate the word "siblings" with a picture of your own siblings.
- Concept Mapping: Concept Mapping uses graphics to illustrate the relationship between concepts or ideas. For instance, if you have read the following passage:

  "...your own siblings."

This refers to linking meanings of words or ideas with mental pictures or prior knowledge. For example, you may associate the word "siblings" with a picture of your own siblings.

Contextualizing: Contextualizing means putting new words into a context such as a sentence. This makes words more meaningful and easier to remember.

II. Cognitive Strategies

Cognitive strategies are strategies directly used to learn. Primarily they refer to learning strategies.

- Categorizing: This means putting words into categories. Suppose you have learned: house, kitchen, parents, siblings. You may categorize them into: 1) people: parents, siblings 2) place: house, kitchen. Can you think of another way to categorize them?

- Association: This refers to linking meanings of words or ideas with mental pictures or prior knowledge. For example, you may associate the word "siblings" with a picture of your own siblings.

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  "...your own siblings."

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Contextualizing: Contextualizing means putting new words into a context such as a sentence. This makes words more meaningful and easier to remember.

III. Metacognitive Strategies

Metacognitive strategies are higher order skills related to planning, monitoring and reflecting on learning.

- Setting goals: Goal setting is essential in planning. Goals keep you on track and give you standards to reflect on learning. However, goals may affect your motivation negatively if set inappropriately. For example, if you want to speak Russian fluently in one year, you would probably be disappointed despite the progress you make, because the goal is unrealistic and the high standard may make you unable to see your progress.

  Follow these principles when you set goals: 1) Be specific 2) Be proximal (achievable in a short time frame) 3) Be realistic.

- Self-monitoring & Self-reflecting: You need to monitor your goal progress. Otherwise you may be distracted by irrelevant tasks and forget about your goal. Reflecting on learning may help you clearly see your progress and experience a sense of achievement. It may also help you find where you need improvement.

  Practice:

  1. Use a technique to remember the meaning of the word "vernal" (meaning: relating to the Spring).
  2. Use Concept Mapping to organize the idea in one of the lessons you have learned.

IV. Compensation Strategies

While learning a new language, you may feel "disabled" in a sense that your proficiency limits your ability to understand a message or express yourself. Compensation Strategies may help you compensate these disabilities.

- Using linguistic clues: This means using clues in the structure of the language to guess the meaning of a word. Every language has its own unique features that may serve as clues. For example, if English, you can use the prefix "dis" (meaning "not") to guess the meaning of words like disown, dissent, etc. In Chinese, you can use different parts in a character to make guesses (see Practice below – try it. It's fun!).

  Using contextual clues: This refers to using the information in the context to make guesses. For example, if you wanted to make a guess of "reticent" in "My sister is reticent. She talks very little." The meaning can be easily figured out.

- Asking for help: No matter how smart you are, you need help while learning a new language. Do not hesitate to ask! As soon as you start to learn a new language, it's a good idea to memorize a few expressions in the language used to seek help, such as "Can you tell me how to say ... in Arabic?", "I don't know how to ... Can you help me?" and so on.

  Practice:

  6. Can you guess the meaning of the Chinese character "人"? (Linguistic clue: "人", means "a person. There are three "人", in this character.)

V. Emotional Strategies

Foreign language learning is probably more complicated than many people are aware. Learning a new language could be acquiring a new identity. This may make you feel insecure at one time or another. It could cause emotional stress, such as anxiety. You may not be experiencing it at this moment but it is helpful if you are aware of this as you learn the language. The following emotional strategies may help you deal with unexpected emotions:

- Keeping a positive attitude
- Using positive verbal statement to encourage yourself
- Rewarding yourself for progress made
- Keeping a learning journal
- Sharing your emotions with someone else
- Using music and laughter

  Practice:

  7. Suppose you pick up slang from a foreign movie and you think it is cool. You try to practice it in the classroom. Someone in class points out that the slang is inappropriate in the classroom. You could feel embarrassed, but would you...

---

1 Techniques marked with an asterisk in all the diagrams are further explained in the text.
APPENDIX E

GOAL ORIENTATION QUESTIONNAIRE
GOAL ORIENTATION QUESTIONNAIRE

Last 4 digits of your Social Security Number ________________

Directions: Please rate how strong you agree or disagree with each of the following statements regarding this course. Do not answer how you think you should be, or what other people think of you. Remember there is no right or wrong answer. Just answer as accurately as possible. If you strongly agree with a statement, circle 5; if you strongly disagree with a statement, circle 1; if you feel somewhere in between strongly agree and strongly disagree, find the number between 2 and 4 that best describes how you feel. The last four digits of your social security number are for identification purpose ONLY. Your answers will be kept strictly confidential.

Remember: 1 2 3 4 5
Strongly disagree .................................................................................. Strongly agree

1. In this course, I prefer course material that really challenges me so I can learn new things..............
2. Getting a good grade in this course is the most satisfying thing for me right now..........................
3. In this course, I prefer course material that arouses my curiosity, even if it is difficult to learn........
4. The most important thing for me right now is improving my overall grade point average, so my main concern in this course is getting a good grade.................................................................
5. When I have the opportunity in this course, I choose course assignments that I can learn from even if they don’t guarantee a good grade.................................................................
6. If I can, I want to get a better grade in this course than most of the other students...................
7. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.................................................................
8. I want to do well in this course because it is important to show my ability to my family, friends, employers, or others.................................................................
APPENDIX F

STRATEGY INVENTORY FOR LANGUAGE LEARNING (SILL)
STRATEGY INVENTORY FOR LANGUAGE LEARNING (SILL)

Last 4 digits of your Social Security Number ________________

Note: The “foreign language” in this questionnaire refers to the language you are learning in this course.

Directions: Please rate how strong you agree or disagree with each of the following statements regarding this course. Do not answer how you think you should be, or what other people think of you. Remember there is no right or wrong answer. Just answer as accurately as possible. If you strongly agree with a statement, circle 5; if you strongly disagree with a statement, circle 1; if you feel somewhere in between strongly agree and strongly disagree, find the number between 2 and 4 that best describes how you feel. The last four digits of your social security number are for identification purpose ONLY. Your answers will be kept strictly confidential.

Remember: 1 2 3 4 5
Strongly disagree ......................................................... Strongly agree

<table>
<thead>
<tr>
<th>Part A</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think of relationships between what I already know and new things I learn in the foreign language.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I use new foreign language words in sentences so I can remember them.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I connect the sound of a new foreign language word and an image of the word to help me remember the word.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I remember a new foreign language word by making a mental picture of a situation in which the word might be used.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I use rhymes to remember new foreign language words.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I use flashcards to remember new foreign language words.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. I physically act out new foreign language words.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. I review foreign language lessons often.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. I remember new foreign language words or phrases by remembering their location on the page, on the board, or on a street sign.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Part B</td>
<td>Strongly disagree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>10. I say or write new foreign language words several times</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. I try to talk like native foreign language speakers</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12. I practice the sounds of the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13. I use the foreign language words I know in different ways</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14. I try to start conversations in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15. I watch TV shows spoken in the foreign language or go to movies</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>16. I try to write notes, messages, or letters in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17. I look for words in my own language that can be associated with words in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18. I find patterns in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19. I find the meaning of a foreign language word by dividing it into parts that I understand</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20. I try not to translate word-for-word</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21. I make summaries of information that I hear or read in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part C</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. To understand unfamiliar foreign language words, I make guesses</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>23. When I can’t think of a word during a conversation in the foreign language, I use gestures</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>24. I make up new words if I do not know the right ones in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>25. I read in the foreign language without looking up every new word</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>26. I try to guess what the other person will say next in the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>27. If I can’t think of a foreign language word, I use a word or phrase that means the same thing</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part D</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. I try to find as many ways as I can to use the foreign language</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>29. I notice my mistakes in the foreign language and use that information to help me do better</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

67
30. I pay attention when someone is speaking the foreign language. 1 2 3 4 5
31. I try to find out how to be a better learner of the foreign language. 1 2 3 4 5
32. I plan my schedule so I will have enough time to study the foreign language. 1 2 3 4 5
33. I look for people I can talk to in the foreign language. 1 2 3 4 5
34. I look for opportunities to read as much as possible in the foreign language. 1 2 3 4 5
35. I have clear goals for improving my foreign language skills. 1 2 3 4 5
36. I think about my progress in learning the foreign language. 1 2 3 4 5

Part E

37. I try to relax whenever I feel afraid of using the foreign language. 1 2 3 4 5
38. I encourage myself to speak the foreign language even when I am afraid of making a mistake. 1 2 3 4 5
39. I give myself a reward or treat when I do well in the foreign language. 1 2 3 4 5
40. I notice if I am tense or nervous when I am studying or using the foreign language. 1 2 3 4 5
41. I write down my feelings in a language learning journal. 1 2 3 4 5
42. I talk to someone else about how I feel when I am learning the foreign language. 1 2 3 4 5

Part F

43. If I do not understand something in the foreign language, I ask the other person to slow down or say it again. 1 2 3 4 5
44. I ask others to correct me when I speak the foreign language. 1 2 3 4 5
45. I practice the foreign language with others. 1 2 3 4 5
46. I ask for help from the foreign language speakers or other people. 1 2 3 4 5
47. I ask questions in the foreign language. 1 2 3 4 5
48. I try to learn about the culture of the foreign language speakers. 1 2 3 4 5
APPENDIX G

COPY RIGHT PERMISSIONS
COPY RIGHT PERMISSIONS

1. Motivated Learning Strategy Questionnaire (MLSQ)

From: Marie Bien [mabien@umich.edu]
Sent: Wednesday, October 29, 2003 11:40 PM
To: Xiao, Ling
Subject: RE: MLSQ Copy Right Issue

I have put one in the mail to you today.

Marie,

Please mail a MLSQ to me today if it's convenient for you. I'll send a check to you this afternoon to the following address:

Marie-Anne Bien, Secretary
The University of Michigan
Combined Program in Education & Psychology (CPEP)
610 East University, 1413 School of Education
Ann Arbor, MI 48109-1259

Thank you.

Ling Xiao

-----Original Message-----
From: Marie Bien [mailto:mabien@umich.edu]
Sent: Wednesday, October 29, 2003 11:15 PM
To: Xiao, Ling
Subject: Re: MLSQ Copy Right Issue

Ling,

If you want me to mail you out a MSLQ before I receive your $10, I will...we do work on the "honor system" here.

The MSLQ fee is $10. Make your check payable to the University of Michigan. With this payment, you are allowed to use the MSLQ in any way that you need to but making sure you give the authors' credit.

Marie-Anne Bien, Secretary
The University of Michigan
Combined Program in Education & Psychology (CPEP)
610 East University, 1413 School of Education
Ann Arbor, MI 48109-1259
PH (734)647-0626; FAX (734) 615-2164
mabien@umich.edu

Dear Marie,

I was so sorry to hear that Dr. Pintrich suddenly passed away. I hope you are coping with the shock and grief well. I am forwarding the e-mail I sent to you and Jennie last week. I will need to keep a written documentation regarding the copy right issue. So please respond to my letter asking for permission. Thank you very much and take care.

Ling Xiao
Dear Dr. Bien and Dr. Knieper,
I am a doctoral student at FSU. I just sent an e-mail to Dr. Pintrich asking his permission to use MSLQ for my dissertation and I got an auto reply saying that he passed away. I'm so sorry to hear about this. May he rest in peace.

Your contact info is sent with the auto reply from Dr. Pintrich's e-mail. I would be very appreciative if you could let me know who I should contact for permission to use Dr. Pintrich's MSLQ for my dissertation. If you are the right person(s) to contact, would you please respond to the following original message I sent to Dr. Pintrich? Or do I need to reword it to get permission. Please let me know. Thank you very much. Looking forward to hearing from you.

Ling Xiao

*******Following is the original message I sent to Dr. Pintrich on Oct. 23, 2003**********

Dear Dr. Pintrich:

I am completing a dissertation at Florida State University. My dissertation topic is "Effects of Goals and Perceived Competence on College Students' Use of Self-Regulated Learning Strategies, Intrinsic Interest and Achievement in Learning a Foreign Language." I would like your permission to use "Motivated Strategies for Learning Questionnaire (MSLQ)".

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. This authorization is extended to University Microfilms International, Ann Arbor, Michigan, for the purpose of reproducing and distributing copies of this dissertation.

Your electronic signature or e-mail permission will also confirm that you own the copyright to the above-described material. If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope.

Thank you very much.

Sincerely,
Ling Xiao

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:
________________________________________

[Paul Pintrich]
Date: Oct. 22, 2003

2. Strategy Inventory for Language Learning (SILL)

From: Rebecca Oxford [rebecca_oxford@yahoo.com]
Sent: Saturday, December 27, 2003 3:42 AM
To: Xiao, Ling; Susie Yin
Subject: Re: Request to Use SILL

You have my permission to use the SILL. I hope you will be in touch with Chengbin Yin, my doctoral student, who shares many of your interests. I will send her a copy of this message.

Sincerely,

Dr. Oxford
Dear Dr. Oxford:


I read some articles about SILL and how it was constructed and tested. I have taught English as a foreign language in China and completed a Master’s degree in TESOL at FSU. SILL sounded to be the instrument that I have been looking for. So I searched on the Internet and found the whole questionnaire. It is exactly what I needed for my dissertation. I would really appreciate it if you give me permission to use it.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. This authorization is extended to University Microfilms International, Ann Arbor, Michigan, for the purpose of reproducing and distributing copies of this dissertation.

Your e-mail permission will also confirm that you own the copyright to the above-described material. I would be most appreciative for your support!

Looking forward to hearing from you.

Sincerely,

Ling Xiao
Doctoral Candidate
Instructional Systems
Educational Psychology and Learning Systems
Florida State University
REFERENCES


Pintrich, P. R., Marx, R. W., & Boyle, R. A. (1993). Beyond cold conceptual change: The


I was born in south China and had my education from elementary to college in China. I wanted to teach when I was in high school. So after I graduated from high school, I went to a teacher’s university and was very happy about it. College was very easy for me. After I received my Bachelor’s degree in the English Language and Literature, I was assigned a job by the government to teach English as a foreign language in a university. In early 1990s, I went overseas for the first time as a visiting scholar for about a year. Then I returned to my previous position and taught English to English majors for a few years.

On August 12, 1997, I came to the United States, a country that many people in the world dream of coming. I came here to seek advanced degrees in Education. I received a Master’s degree in Teaching English to Speakers of Other Languages (TESOL) and a Ph. D. degree in Instructional Systems from the Florida State University (FSU).

During my graduate studies at FSU, I worked as a teaching assistant every year and have taught various subjects. I also worked for the Program of Instructional Excellence in the Center for Teaching and Learning at FSU. I have enjoyed learning, teaching, and working at the Florida State University. During this period of time, my two little boys were born and I certainly have enjoyed them as well!