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## The Effect Of Visualized Student's Self-set Learning Progress Goals On East Asian Chinese Student's Motivation And Self Confidence In Learning

Yu Ao  
*University of Central Florida*



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THE EFFECT OF VISUALIZED STUDENT'S SELF-SET LEARNING PROGRESS  
GOALS ON EAST ASIAN CHINESE STUDENT'S MOTIVATION AND SELF-  
CONFIDENCE IN LEARNING

by

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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the College of Education  
at the University of Central Florida  
Orlando, Florida

Summer Term  
2012

Major Professor: Stephen A. Sivo

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## **ABSTRACT**

This study was conducted to determine if visualized goal achievement can help enhance East Asian Chinese students' motivation in learning and elevate their confidence in reaching their goals thus improving their performance. The goal achievement was visualized on a goal achievement progress chart that was self-created and self-managed by the East Asian Chinese students and the goal creating was under the supervision of their instructor. In this study, literature reviews on the theories, previous research studies in the perspectives of East Asian students' motivation in learning, goal setting on motivation, self-determination, self-efficacy, and expectancy theories are conducted to provide theoretical ground and legitimate evidence for this particular research.

The researcher conducted an experiment in which students were given a learning task and required to set their own learning goals for that learning task under the supervision of their instructors. In this specific experiment, a total of 106 students from a university that was funded by American Educators in a central province in China agreed to participate in stages one, and two of the study, but some students withdrew from this research and some did not participate in both research stages therefore their data were taken out from the data to make research result more consistent. Therefore eventually 72 students were considered eligible to go through the whole process of turning in the questionnaires and participating in the performance test. In this particular goal setting research study, the students were given the freedom of setting their own learning pace

and managing their own progress on a visualized progress chart. The progress chart was visualized as a climbing/progressing line, which goes from bottom to top (see appendix C) once students achieved their learning goals. At the same time, the instructor provided feedback concerning the students' progress. Although some of the research results displayed no statistical significance for motivation and self-confidence during the pre and post session of the research, there is a positive correlation among motivation, self-confidence, and performance outcome. One research result did corroborate the previous research study that goal setting strategy would improve learning outcome.

To my beloved parents, Fengqiong Wang and Fusheng Ao; my dear wife, Mei Liu, and my brother Xiang “David” Ao, and all the friends that have been giving me supports and encouragement. I am very humbled and thankful.

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## CHAPTER 1: INTRODUCTION

Motivation, self-confidence or self-efficacy, and performance have always been popular topics in the research area of education and training. My impetus to start investigating motivation, self confidence in learning, and the performance relating to them stemmed from my experience both as a language learner and a teacher when I was studying in high school and in college and then later teaching in college.

As a learner, on one hand, I experienced a delightful and fruitful learning process when I witnessed myself acquiring language skills and developing my language competence step by step and day by day. I felt myself improving and making meaningful progress through my step-by-step learning. On the other hand, I also suffered the boredom of remembering individual words, a process which I deemed lifeless, and therefore I was constantly in need of self-motivation to keep me focused on learning.

As a former language teacher, I also noticed that my students were experiencing difficulties and boredom in learning. They gradually lost their motivation and confidence in learning English as they described it as unpleasant and overly boring, which was very similar to my English learning experience. Therefore, I felt that it was important to investigate how to sustain students' motivation and self-confidence in learning. Previously, many researchers have already conducted research to help find an optimal way to facilitate educators, and to train professionals to help students foster and maintain their motivation and confidence in learning and to improve their learning

performance. The research results have been fruitful. Apparently however, it has become evident that learners do not necessarily learn the same way, and how they can be motivated to learn directly relates to their learning outcomes. Though there are many research studies that have been conducted to investigate strategies such as goal setting to maintain people's motivation in learning, it is my belief that few of the studies were conducted based on a specific cultural attribution such as East Asian self-improving motivation. Likewise, since people of different cultural backgrounds may be motivated to behave and learn for different reasons due to impact of their culture, it is very important to shift from the generality of learning motivation to the specificity of learning motivation within one's culture. That is, how can we provide one more relevant strategy, if there are any available already, to better motivate students from an East Asian country to learn, to strengthen their self-confidence, and to improve their learning performance? After all, people are different, let alone the people from a totally different country that has its own distinct culture values and norms.

Each distinct culture has its own cultural values (Kluckhohn & Strodtbeck, 1961) that shape people's self-perception and direct people's behavior. Cultural values such as individual competitiveness vs. group harmony can play a role as a motivational foundation for people's action and as illuminating logic for their behavior (Stella, T.T. 1999). After a comprehensive literature review, I found that even though many research studies were conducted on the motivation across cultures, not very many research studies have been conducted to investigate the effects of visualized self-creating goals on students from East Asian Chinese culture; Likewise, few research studies have been

conducted on the effect of what specific culturally based goal setting strategy would help them to enhance their motivation and self-confidence in learning in an individual perspective. Concerned with this issue, I believe that it is meaningful to investigate this matter and provide one more method that can help students from collectivist cultures, such as the East Asian Chinese culture, to learn and build up their motivation and confidence in achieving their learning goals.

This dissertation explores how visualized student's self-goal setting on a goal setting chart can help improve East Asian Chinese students' motivation and self-confidence in learning. It also probes whether or not this specific goal-setting strategy can help students improve their learning performance. In this particular research study, Chinese college students (18-20 years of age) were chosen as the representative of East Asian students, and literature reviews will be conducted to provide evidence to give legitimate reason and theoretical foundation as to why this study is feasible and worth pursuing.

This chapter presents: (a) the statement of problem, (b) the purpose of this study, (c) theoretical framework, (d) research questions, (e) significance of this study, (f) definition of terms, and (g) organization of this dissertation.



## Statement of Problem

Though many research studies have investigated goal setting strategies to maintain students' motivation and improve students' confidence, there remains insufficient evidence to prove how goal-setting or what specific kind of goal setting strategy can be more relevant in motivating a specific cultural group. Therefore the problems are:

- 1) Insufficient goal setting strategies have been provided for particular cultural and ethnic group such as East Asian Chinese students;
- 2) The studies conducted to investigate the participation of goal setting have been focused on the collective level but not on the individual level. In other words, insufficient goal-setting studies have been conducted to investigate motivation variation on individual level.
- 3) Insufficient goal setting visualization in the form of a progress chart has been utilized in research.
- 4) Most of the motivational research studies conducted on East Asian cultures have been centered on Japanese students.

To illustrate, Erez (1986) stated that most of the studies that have examined the effects of participation in goal setting on an individual's productivity rarely have taken variables within a cultural context into consideration. Also, most of the studies concerning participation in goal setting have been conducted at the societal level, focusing on participative and collectivistic values (Hofstede, 1980 & Erez 1987) or on

organizational level practices and their effects on work attitudes (Erze, 1987). Therefore this research will shift from collectivistic level to individualistic level as to how to provide one more motivational strategy to East Asian Chinese students to help reinforce their motivation and strengthen their confidence in learning after this proposed intervention.

Likewise, based on the literature review on goal-setting studies, I have discovered that the lack of specific strategy to let the students visually see their progress in their goal achievement in the literature calls for specific research design to investigate the variation in students' motivation and self-confidence status after they visually recognize their goals as being achieved. The goals they achieved should represent progress they made upon their endeavor. As Rader (2005) pointed out, "The power of visualization is a reliable technique that helps students achieve their goals" (p. 124). Hence, if students can expect their achievements they will make in the near future with their own efforts and if they receive constructive and critical feedback from their instructor, they will subconsciously feel that goals are going to be achieved with their effort. That is because visualization depicts their desired outcome of action and efforts to their subconscious minds (Rader, 2005). Accordingly, I would postulate that by achieving the goals and visually seeing their goal attainments, students will feel more motivated and more confident for their own control of learning; hence, their performance will be improved thereafter.

Moreover, it is to my belief that even though a lot of previous research studies on motivation have been conducted on the basis of East Asian culture, many of them just targeted Japanese students, who were chosen as the representatives of East Asian

interdependent construal. Therefore, the research results may not exactly have provided convincing evidence of how East Asian students from other cultures can maintain and enhance their motivation, strengthen their self-efficacy/self-confidence and improve their performance. As a result, it is necessary to include other East Asian nationalities to make research investigation results on East Asian students more reliable and comprehensive. Accordingly, this dissertation research study set out to investigate Chinese students as East Asian student representatives, especially Han Chinese students who are the majority ethnicity in the central province in China. Based on my research literature review, I have discovered that the reason that only a small number of previous research studies have been conducted to investigate the differences between American students and Chinese students was that America and China were not equivalent in terms of industrialization, and modernization. Since times have changed, there may be many factors that influence the research result. The similarities between US and Japan explain why many research studies were conducted on Japanese students. Japan is a fully industrialized and modernized nation topping other Asian countries (Cousins, 1989) in East Asia, and Japan has a very well educated population and it is considered to be equivalent to United States in industrial and scientific achievement (Cousins, 1989). Therefore, many cultural research studies focused on the Japanese instead of Chinese or Koreans, especially Chinese, who actually comprises the majority of the East Asian population.

Nevertheless, with the rapid economic development and constant communication with the developed Western world in China currently, people's living standards have been greatly improved and the Chinese people have become more modernized as compared to even two decades ago. According to the statistics of the World Bank, in the 2010 statistical rank for world GDP (Gross Domestic Product), China (with a GDP of &5,878,629) surpassed Japan (with a GDP of \$5,497,813) as the second largest economic power in the world. Therefore it would be very meaningful to conduct educational research in the East Asian cultural context where Chinese college students will be chosen for research on East Asian students' motivation and self-confidence in learning. Chinese college students share cultural roots such as Confucius philosophy with Japanese students, and Koreans students also place strong emphasis on their role within hierarchical structure in an organization or in a broader sense within their social context. In this paper, I intend to choose Chinese students in a central province of China as the representatives of East Asians.

### Purpose of This Study

The purpose of this research study is to investigate a newly proposed student goal-setting strategy, which is grounded in East Asian students' self-improving motivation, goal-setting theory, self-determination theory, and other relevant motivational theories and models. The researcher hopes that this particular goal setting strategy will help East Asian students improve their motivation and self-confidence in learning. In this

research study, Chinese students are chosen as the representative sample of the East Asian students.

### Theoretical Framework

The feasibility of conducting this specific study will be illustrated from five theoretical perspectives and grounded on one motivational model. The five perspectives are: 1). cultural differences, 2). goal setting, 3). expectancy, 4). self-determination, 5). self-regulated learning. In this research study, finally Keller's ARCS motivational model serves as the foundation of this particular goal setting-strategy.

### Research Question

People have a lot in common but they also differ from each other. The differences lay in not only individual disparities but also cultural backgrounds in which they have been raised and taught how to behave and how to interact with each other in an implicitly and explicitly socially accepted way. For example, students from cultures that esteem independence and individualism have been raised to view themselves more positively in learning and beyond; their culture and education have cultivated them to have self-enhancing motivation. On the other hand, students from cultures such as East Asia are more likely to embrace self-criticism and value self-improving motivation. They tend to believe in effortful learning to achieve learning goals and downplay the importance of innate ability. Accordingly, the research questions are:

1. Do East Asian Chinese students, who have learned to use visualized self-goal-

creating technique, displays evidence of greater self-confidence than before using the strategy and do they also display evidence of greater self-confidence than the East Asian Chinese students who do not learn how to use the technique?

2. Do East Asian Chinese students, who have learned to use the visualized self-goal creating technique displays evidence of greater self-motivation than before using the strategy, and do they also display greater self-motivation than the East Asian Chinese students who do not learn how to use these technique?
3. Do East Asian Chinese students, who have learned to use the visualized self-goal creating technique displays evidence of greater test performance than before using the strategy, and do they also display evidence of greater test performance than the East Asian Chinese students who do not learn how to use the technique?

If East Asians, Chinese specifically, value effortful learning and tend to have self-improving motivation as has been discovered in previous research studies, they are assumed to have stronger motivation and self-confidence if they can visually see their improvement and progress. Based on the previous research discoveries, the following hypothesis is presented:

Hypothesis 1.1: There is a statistically significant difference between the control group and experimental group in motivation in the pre and post session of the research based on the same testing instrument

Hypothesis 1.2: There is a statistically significant difference for the experimental group in motivation between the pre and post session of the research based on the same

testing instrument

Hypothesis 2.1: There is a statistically significant difference between the control group and experimental group in self confidence in the pre and post session of the research based on the same testing instrument

Hypothesis 2.2: There is a statistically significant difference for the experimental group in self-confidence between the pre and post session of the research based on the same testing instrument

Hypothesis 3.1: There is a statistically significant difference between the control group and experimental group in performance in the pre and post session of the research based on the testing instruments

Hypothesis 3.2: There is a statistically significant difference for the experimental group in performance between the pre and post session of the research based on the testing instruments.

### Significance of This Study

Numerous research studies have been conducted to investigate motivation. But after a comprehensive literature review, it is to my belief that not very many research studies have been conducted on the visualized goal setting strategy to enhance people's motivation in East Asian Chinese cultural context and to test the goal setting strategy based on East Asian self-improving motivation. Accordingly, this particular study presented a review of East Asian and North American motivational attribute, goal

setting theory, expectancy theory, and self-determination theory to propose a visualized students' self-goal setting strategy in East Asian Chinese context. By elucidating East Asian students' self-improving motivation and North American students' self-enhancing motivation, the research discusses how the self-goal setting strategy and self-improvement visualization chart can be based on the previous research findings.

This particular research study additionally sheds light on the future instructional design for designing efficient and relevant training programs and instructional content according to the characteristics of the two cultural groups as individualistic and collectivist groups. Also, the increasingly emergence of East Asian Chinese students as well as Korean and Japanese students in American institutions of higher learning calls for attention for the cultural differences between the students from East Asia and North America (collectivist vs. individualist). The following paragraphs illustrate the points of significance in more details.

After a comprehensive literature review on goal setting research studies, I have discovered that very few investigations have been conducted to provide a visualized students' volitional goal setting strategy to help strengthen East Asian Chinese students' motivation and self-confidence in learning. Even fewer research studies were conducted on the basis of the Chinese students' cultural background to investigate how goal setting that is visualized in their self-paced learning progress chart can help maintain their motivation and self-confidence. This is especially true in East Asian Chinese students' motivation in learning English based on Liu's (2005) research investigation. Liu (2005) indicated that according to the previous research studies, the



empirical studies that have been done on Chinese students' motivation in learning English have been considered to be insufficient (Hao et al., 2004; Hu, 2002; Zhou, 1998). Accordingly, this study will be carried out to investigate the East Asian Chinese's motivation by conducting it in an English classroom in a central province in P.R. China.

Americans may wonder why the institutes of higher learning should conduct research on internationals and particularly on ethnic Chinese students in China. They may also wonder what kind of benefits this research can bring. According to Chirkov, Vansteenkiste, Tao and Lynch (2007), international students comprise a sizeable portion of the student population in many institutions of higher learning, and their academic achievements, health, and psychological well being are not only important for the students themselves, but also for researchers and university administrators. Their assertion was formulated on the basis of numerous studies (Buddington, 2002; Furnham & Bochner, 1986; Glennon & MacLachlan, 2000; Nipoda, 2002; Schwartz, 1973; Selltiz & Cook, 1962; Selltiz, Crist, Havel, & Cook, 1963; Toyokawa & Toyokawa, 2002; Walker, 1999). Also, based on the statistics in International students guide (2003-2004), there are more than 40,000 students enrolling in American colleges every year and the number is apparently growing with the rapid economic improvement in newly emerged economic power (Gorsuch, 2003). Moreover, according to Jin and Cortazzi (2006), students from China are out numbering the other international students and formulate potential international educational market. However until most recently, the Chinese students' cultural background and ways of learning were less familiar to most teachers, internationally.

In the instructional design perspective, the cultural diversity in training population is also gaining attention. According to a research study by Rogers, Graham, and Mayes (2007), there are approximately 400,000 students in 10,000 academies in 150 countries that have received Cisco's academic curriculum development (Dennis et al., 2005), and Global University, based in Springfield, Missouri, offers courses to more than 600,000 students in 178 countries, in more than 145 languages (Rogers & Howell, 2005).

As a result, the issue of culture in the field of Instructional Design is attracting more attention and gaining an increasing audience of interest. The instructional designers, who work to design efficient and relevant training plans, are not immune from the influence of their own culture. In this regard, Burnham (2005) contended that current prevailing expression of instructional design may be so grounded in Western culture that is of less value for a different culture. It is recognized that "even though people of all cultures find themselves learning and teaching in formal instructional settings; who they are and what they bring to these settings can make large differences in how design is approached" (Rogers, Graham, and Mayes, 2007, p. 198). However, Henderson (1996) has pointed out that very little attention has been paid to the relationship between cultural context and instructional design in the relevant educational technology and instructional design literatures. According to Wild and Henderson (1997)

*It seems apparent that the lack of research to target cultural issues in instructional design for distributed and interactive learning systems is even more noticeable and is likely to have serious consequences, particularly for students as well as for universities (p. 181).*

Accordingly, it should be considered to be irrelevant to ignore the cultural background of international students in the field of education and training. In this particular research study, East Asian students, especially Chinese students, are chosen to be the target research group because they are the largest group of international students to attend U.S. institutions of higher learning. Moreover, it is equally important to have the cultural awareness of the international students' way of learning.

### Definition of Terms

Numerous terms have been used to help illustrate the theoretical foundation of this study, and the terms used are very often exclusive to the people outside of this research field. Therefore, it is imperative to clarify the definitions of terms in order to disperse some of the probable confusions.

Culture: a complex frame of reference that consists of patterns of traditions, beliefs, values, norms, symbols, and meanings that are shared to varying degrees by interacting members of a community (Stella, 1999, p.10).

Cultural value: refers to a set of priorities that guide "good" or "bad" behaviors, "desirable" or "undesirable" practices, and "fair" or "unfair" actions (Kluckhohn & Strodtbeck, 1961).

Individualism: the opposite of collectivism; together they form one of the dimensions of national cultures. Individualism stands for a society in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family only" (Hofstede, 1994, p. 261).

Collectivism: a term that "stands for a society in which people from birth onwards are integrated into strong cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1994, p. 260).

Independent construal: A term describe a bounded, unique, more or less integrated motivational and cognitive universe; a dynamic center of awareness, emotion, judgment, and action organized into a distinct whole and set contrastively both against other such wholes and against a social, natural background (Geertz, 1975, p. 48 as cited in Markus, & Kitayama, 1991).

Interdependent construal: A term describe people are motivated to find a way to fit in with relevant others, to fulfill and create obligation, and in general to become part of various interpersonal relationships (Markus, & Kitayama, 1991, p.227).

Immediacy behavior: defined as "those behaviors that help build close relationships or feelings of closeness" (Gunter, 2007, p. 197).

Motivation: the process whereby goal-directed activity is instigated and sustained. It is a process that underlies behavior and is inferred from such actions as choice and persistence. It involves both mental and physical activity (Pintrich & Schunk, 2002).

Self-enhancement motive: holds that individuals often direct their behaviors toward enhancing their feelings of self-worth (M.H. Kernis et al, 2005, p. 324).

Self-Criticism: refers to sensitivity to negative self-relevant information (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997 p. 1246).

Self-improvement: refers to the tendency to overly dwell on, elaborate, and exaggerate negative aspects of the self relative to one's strengths in an effort to correct the perceived shortcomings (Heine, 2001, p.3).

Self-efficacy: the belief in one's capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997 p.3).

Self-perception: refers to an individual's ability to respond differentially to his own behavior and its controlling variables, is a product of social interaction (Mead, 1934; Ryle, 1949; Skinner, 1957). Verbal statements that are self-descriptive are among the most common responses comprising self-perception, and the techniques employed by the community to teach its members to make such statements would not seem to differ fundamentally from the methods used to teach interpersonal perception in general (Bem, 1967).

Goal: refers to "what an individual is trying to accomplish; it is the object or aim of the action" (Locke, Shaw, Saari, & Latham, 1981, p. 126).

Goal Setting: refers to a process by which an individual establishes goals (objective or aim of the action) (Locke & Latham, 1990).

## Organization of This Dissertation

This study aims to investigate the effect of visualized student self-created goal-setting strategy. The strategy used in this research study is based on previous research findings of East Asian learning motivation, namely self-improving motivation. This chapter delineates the rationale for conducting this research. That is, if East Asian students tend to have self-improving motivation, what would be the outcome if they could control their learning improvement and if they could visually see their progress in their own learning? Moreover, this research study will point out the existing problem that guides the operation of this research study and why it matters for higher education in the United States of America.

In chapter two, theories and empirical studies will be reviewed in the following areas: (1) East Asian self-improving motivation and North American self-enhancing motivation, (2) Goal setting theory, (3) Expectancy theory, (4) Self-determination theory and finally, and (5) Self-regulated learning. Keller's ARCS motivational model is used as the motivational model for this research study.

Chapter three discusses the methodology employed in this research study, the research setting, research participants, and research design.

Chapter four presents the result of quantitative analyses, and in Chapter five will discuss and interpret the data depicted in Chapter four. Chapter five will also restate research questions and hypotheses and discuss if the research results prove or disapprove the null hypotheses. Likewise, chapter five presents implications and gives recommendations for future educational practice and research.

## CHAPTER 2: REVIEW OF THE LITERATURE

### Introduction

Motivation has always been a frequently investigated research topic in many fields of profession and academics such as education, psychology, and business and it is “the set of processes that arouse, direct, and maintain human behavior toward attaining a goal” (Greenberg and Baron, 1993). Numerous studies have been conducted to investigate motivation and the impact of motivation on students and employees in school settings and in business, as well as in corporations. How important is motivation in learning? The importance of motivation in education as Ames (1990) stressed in her research, is as follows: “There are three things to remember about education. The first is motivation. The second one is motivation. The third thing is motivation” (p. 409). Perhaps Ames has overemphasized the importance of motivation in education but the significance of motivation and the impact on the outcomes of learning associated with it have been widely recognized and acknowledged in many areas of research in education. In addition to Ames, many researchers agree that motivation has a dramatic effect on student learning (Smiley & Dewek, 1994) and “more importantly, in the real world, motivation is highly valued because of its consequences: motivation produces” (Ryan & Deci 2000, p. 69). It is also believed by many researchers that motivation carry significant impact on student learning (Mankin, Boone, Flores, & Willyard, 2004). Researchers indicated that motivation is one of the most powerful determinants of

students' success or failure in school (Ryan & Connell, 1989; Sternberg & Wagner, 1994). To be more specific, for example, Means, Jonassen and Dwyer (1997) cited studies showing that motivation accounted for 16% to 38% of the disparities in overall student achievement.

If motivation is important for students to have in learning, it is equally important for teachers and instructional designers to have the awareness of the significance of motivation for students to learn. Instructional design, in this aspect, has been described and defined to incorporate various variables to improve learning and performance in variety of settings. It is known that an instructional designer's role is to help the student learn better and more efficiently and there are many good instructional materials and instructional plans available to facilitate students learn. But, based on my past learning experience and teaching experience, I found that if the students do not have the motivation to learn or if the students cannot be motivated to learn, the effect of learning will be greatly reduced even with good instructional materials and instructional plans handy. Therefore motivational strategy to enhance learning efficiency is a very important element in the learning system. Small and Gluck (2000) pointed out that in predicating learning achievement, the importance for a student to have motivation to learn is equivalent to the his/her ability to learn. Learners, in their statement, learn better if they are motivated to learn, and this is especially true for adult learners. However, Visser & Keller (1990) state that in the practice of the instructional designer, motivational requirements of the learner are not regarded as an indispensable part of the design but just a generic concern. The emphases put on learning by instructional



designers “have been on factors directly influencing learning effectiveness and not on factors that stimulate the motivation to learn” (Visser & Keller, 1990, p.468). In fact however, the designers lack the strategies helpful in analyzing this area and come up with strategies in response to specific problems for the motivational requirement in instructional design (Visser & Keller, 1990). In Visser and Keller’s (1990) research, they also illustrated that the casual relationship between motivation, learning direction and the students’ awareness of what s/he can accomplish sometimes is more valuable than actual instruction. In the field of instructional design, in any phases, either in the ISD model or Gagne’s nine events model as they stated, motivation should be concerned as one of the major designing elements. Wetterling (2006) indicated that both systemic issues and learner’s motivation should be considered to be an integral part of the design process (ADDIE), especially during the Analysis phase and the Evaluation phase.

Nevertheless, it is to my believe that instructional designers also need to bear in mind that people from different countries and different cultures can be motivated to learn due to the influence from their own cultural values and norms. The reason is that every individual belongs to certain culture and “it assumes that without culture, there is no self, only biological entity deprived of its potential” (Heine, 2001, p884). Further, “Individual selves are inextricably grounded in a configuration of consensual understandings and behavioral customs particular to a given cultural and historical context” (Heine, 2001, p.884). Then what do we mean by culture and the characteristics in association with it? Many researchers conducting research studies in cultural context have tried to give definition to this rather abstract term. Stella (1999)

defined culture as “a complex frame of reference that consists of patterns of traditions, beliefs, values, norms, symbols, and meanings that are shared to varying degrees by interacting members of a community” (p. 10).

Hofstede (1980) stated:

*Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience. When we speak of the culture of a group, a tribe, a geographical region, or a nation, culture refers to the collective of mental programming that these people have in common; a programming that is different from that of other groups, tribes, regions, minorities or majorities, or nations (p.43).*

Based on the statement, we can infer that culture is interpreted as a commonly shared concepts and codes for behaving and communication.

Culture is also defined as the beliefs, value systems, norms, mores, myths, and structural elements of a given organization, tribe, or society (Watson, Ho & Raman, 1994). Culture can manifest through individuals and groups and how they interpret and react to their environment (Collis, 1999). Wild and Henderson (1997) believed that individuals are strongly impacted by their personal values and attitudes as well as the societal norms around them. The widely shared values among a group of people serve as common mechanism that provides this group of people shared understandings and interpretations of their world and helps to establish the clarified priorities.

As a result, we can infer that behavioral manifestation, such as studying and working hard, might be the same for students from different countries, but the motivation of their actions can be very different based on the commonly shared rules and norms in their traditions and daily practices. As Hernandez and Iyengar (2001) indicated, people will only be motivated when the contexts cultivate a perception that is relevant with people's culturally related values or beliefs. Therefore, it is important to take the effects of cultural values, norms, and practices into consideration when applying strategies and impacts of academic motivation to students from different cultures (Ng, 2003; Trueba, 1988). Otherwise, instructional designers, instructors, or educators in a broader sense may practice their professions by referring to Western theories or concepts could be considered unsuitable for East Asian cultural context and vice versa (Zhu & Leung, 2010).

Likewise, research studies also revealed the significance of self-confidence in facilitating people's motivation in their learning engagement because "confidence in his ability and efficacy can help the individual undertake more ambitious goals and persist in the face of adversity" (Renabou & Tirole, 2002, p. 872). It is believed that self-confidence has been an important variable in people's success in education and career across cultures and nations. The results of many research studies indicated that self-confidence plays an important role in people's willingness to take on new challenges, to persist in a given task that is deemed to be tough to deal with, and to have the courage to face failures. This is true in many aspects of life, especially in learning. In other words, "in most societies, self-confidence is widely regarded as a valuable individual asset"

(Benabou & Tirole, 2002, p. 876), and believing in oneself is deemed as a key to personal success (Benabou & Tirole, 2002). Therefore, many cultures where self-esteem is highly valued regard self-confidence as one of the most important variables to determining one's success in his or her school and career. And that is why American schools place a strong emphasis on nurturing children to develop self-confidence throughout the school years. Benadou and Tirole (2002) believe that even when faced with setbacks and temptations that periodically test one's will power, if one has strong self-confidence, s/he still has the motivation to undertake project and persevere in pursuit of his or her goals. Other research studies have also proven that there is a positive correlation between self-confidence, motivation and academic performance. According to Tavani and Losh (2003), the levels of students' motivation and self-confidence also strongly influence their achievement during their high school careers more than other factors. Likewise, in Tavani and Losh's research study (2003), they pointed out there is a positive correlation between self-perceived competence and self-concept and indicated that students' academic achievement is strongly related to the levels of competence and self-concept.

Yet, if East Asian students tend to stress more about self-criticism then strive to correct their shortcomings, how will they gain self-confidence if they do not base their motivational drive on their success at accumulating self-confidence? Accordingly, in order to explore the role of motivation and self-confidence in students' success in learning within a specific cultural context, in this particular research, East Asian Chinese students (the majority of Han ethnicity) were targeted for investigation because they are

the closest cultural carriers and descendants of Confucianism. It is well known that Confucian heritage has been a solid cultural and philosophical foundation for education and socialization norms in East Asia for thousands of years, and Confucian heritage is great China, Japan, Korea, Singapore, Vietnam, and more or less in overseas Chinese in Southeast Asia (Littrell, 2005).

Nevertheless, in order to present a clear picture on East Asian characteristics in learning and motivation, it is necessary to discuss how Westerners or North Americans differ from East Asians in their characteristics in motivation to learn as a reference. Also North American self-perception and their perception of their relationships with their social context will be discussed in this research study. The reason for discussing people's perception first is that how people perceive themselves and their social context will influence how they may be motivated to learn. Then, the basic elements of Western or North American characteristics of learning and motivation will also be discussed. East Asians and North Americans are highlighted for discussion in this particular research study because these two cultural groups have been selected for self-concept comparison as the most represented in literatures and they have been described by many as theoretically distinct (e.g., Markus & Kitayama, 1991; Triandis, 1989; Hine, 2001). Heine (2001) then further stated

*There is much evidence to suggest that American culture represents a rather extreme case of individualism and was founded on an ideology that emphasizes the importance of self-determination and individual rights while on the other hand the East Asian self is typically*

*described as being collectivistic or interdependent, reflecting the significant role of relationships with in-group members in the construction of the self (p.885).*

Therefore, based on Heine's statement, we can infer that the concept of self in the highly individualized North American culture will differ significantly from the self-concept in the Confucius interdependence East Asian culture. People's perceptions of themselves and their relationships with others also have an important impact on their actions and their motivation to learn. The way North Americans view themselves and their relationships with others differs significantly from that of their East Asian counterpart.

#### North Americans and East Asians' Self-perceptions

Due to the disparities between Western or North American culture and East Asian culture, both groups are influenced by their own cultural attributions, such as cultural values, norms and traditions. People's perceptions of human nature result from their participation in cultural worlds, and their adaptation to their cultural directives, and it means our nature is in fact the product of our own culture (Heine, 2001). Due to the historical and cultural reasons, Westerners, North Americans in this regards have been raised more individualistically and independently as opposed to East Asians, who traditionally value collectivism and rely upon each other for social recognition and harmony. Apparently, the Americans and East Asians have a very different view of

themselves and their relationships with others. Opposite to the concept of American self, Erez and Somech (1996) pointed out that people in collectivistic societies see themselves embedded in their encompassing social relationship, and they feel that their actions and behaviors are in response to the thoughts, feelings, and actions of others. Conversely, in individualistic cultures there is “a clear differentiation between self and others, and the normative imperative is to become independent from others and to discover and express unique attributes” (Erez & Somech, 1996. p. 1518). Based on these researchers’ discoveries, it is proper to say that social context influences East Asians and North Americans very differently. However, both North Americans and East Asians may be motivated to learn and to work for their own needs: In a comparative sense, North Americans are mostly motivated to act based on the needs more relevant to their own pursuits, whereas East Asians, on the other hand, can be motivated for action more likely by the influence from their social context and surrounding variables.

Also, these two different ethnic groups have very different views of their relationships with their environments. Both of these two racial and cultural groups believe in the concept of malleability but North Americans tend to view the world as being malleable, changeable, or controllable, as opposed to East Asians, who view themselves as being malleable and their living social context as beyond control, and believing that individuals should try to adapt to their social context. Geertz (1975), Markus and Kitayama (1991), and Heine (2001) explored this particular research and found that the North American independent self is more of a bounded and volitional entity, relatively separate from others and the encompassing social context, meaning

that the self remains constant across situations.

In contrast, East Asians are considered to be more “fluid” across situations: “Hence, changing situations will find the East Asian self in new roles bearing different obligations. It is important what the role requirements are for a given situation and to adjust itself accordingly” (Heine, 2001, p. 886). Su, Chiu, Hong, Leung, Pengy, and Morris (1999) also found that for East Asians, due to Confucius influence, the role assigned to them is considered to be immutable in a relative perspective but the self must be flexible enough to be capable in approximating the consensually shared standards regarding the roles. Accordingly, it is proper to infer that North Americans tend to believe that the external aspect is more changeable than the internal aspect of people, and their internal attributes are more bounded and fixed entities. Therefore they have the tendency to take action to reinforce their self-esteem and to present their internally fixed self-competence which is used to change the external world to fit to their needs. As opposed to North Americans’ self-perception, East Asians view themselves as more changeable, and they strive to adapt to their social surroundings and to adapt their actions in order to fit in their assigned role. In order to be adequately accepted by their social context and fulfill their assigned role, they need to be more cautious about their own behavior and need to adjust their behaviors accordingly.

Therefore, it is important to be aware of the difference of the two different cultures that make people view themselves and the relationship with others. From these disparities the previous research studies revealed, I would argue that the difference in their perceptions of themselves and their social context also cause them to study or



work hard for different reasons. The previous studies also indicated that Westerners or North Americans tend to view themselves more positively and try to work hard to enhance this notion of self-esteem and self-competence for themselves. East Asians, on the contrary, would rate themselves comparatively in a more critical view in comparison with others and work to improve themselves to catch up with and to be accepted by their peers so that they live up to the expectations of significant others.

The following sections elaborate on the cultural characteristics of North American cultural carriers and East Asian cultural carriers and previous literatures is reviewed to provide theoretical frameworks for this dissertation research study.

### North American Characteristics in Learning and Motivation in Learning

In their research investigation, Tweek and Lehma (2002) illustrated the philosophies that influence the individualistic West and collectivistic East Asia. They also discussed the differences between the Socrates' philosophy of learning in the individualistic West and the Confucius philosophy of learning in the collectivistic East Asia.

According to Tweek and Lehma (2002), the Western style of learning which is known to be based on the Socrates' philosophy of learning has the following characteristics:

1. Tendency to Question
2. Tendency to Evaluate

3. Esteem for Self-Generated Knowledge
4. Focus on Error to Evoke Doubt
5. Search for Knowledge, Not True Belief

Moreover, previous research studies also presented how North Americans perceive themselves and what kind of motivation they have for their action and behavior based on their self-perceptions (Geerts, 1975; Kitayama, 1991; Heine, 2001).

The past studies indicated that the motivation for learning and for achieving learning goals for Westerners, North Americans and East Asians differ from each other. The researchers found that the North Americans tend to possess a clear goal of viewing themselves positively as individuals (Rogers, 1951; Taylor & Brown, 1998). The findings of many studies have supported this research finding that North Americans would rate themselves in more positive way and would set their goal for self-enhancement rather than for self-improvement. In Heine (2001)'s research, he listed a handful of investigations conducted by other researchers in this particular field to elucidate this claim: This research reveals that the vast majority of North Americans view themselves in highly positive terms based on the score of the theoretical midpoint of self-esteem scales (Baumeister, Tice, & Hutton's, 1989). But in this particular paper, Dr. Heine only conducted a literature review to support his research and the evidence he used to back up his claim was cited from other researchers' work so it may not be persuasive enough to make a convincing statement. However, the findings of Heine, Kitayama, Lehman, Takata, Leung, Ide, Eugene, and Matsumoto (2001) helped support his discovery. They discovered that

*Being brought up in a cultural context composed of such practices, North Americans are likely to develop habitual psychological tendencies to identify positive attributes of the self, confirm them in private, and express them in behavior (p.600).*

In some other volumes of research on self-efficacy, self-esteem, self-enhancement, and self-evaluation maintenance conducted in North American cultural contexts, the research outcomes support this analysis. For example, in the research study conducted by Markus and Kitayam (1991), they found

*People's motive in initiate, terminate, and persist in specific actions in particular circumstances usually involves some type of internal, individually rooted need or motive – the motive to enhance one's self-esteem, the motive to achieve, the motive to affiliate, the motive to avoid cognitive conflict, or the motive to self – actualize (p. 239).*

In comparison to North American students, East Asian students exhibit different characteristics in learning due to their unique cultural influences. The following section elaborates East Asian students' characteristics and motivation in learning.

### East Asian Characteristics in Learning and Motivation in Learning

After thousands of years' interaction with each other through commerce, wars, trades, and political communications, East Asian people, namely Chinese, Koreans and

Japanese, have cultivated similar cultural foundations and share similar idealism and philosophical concepts. China, known as the cradle of Confucianism, has radiated great influence on her neighboring countries, such as Japan and the Koreans. Not only has China held Confucianism with high esteem, but both Korea and Japan also have embraced Confucius philosophy after they imported it to their own countries. As Littrell (2005) indicated in his literature, Confucianism was adopted as China's state religion during the Han Dynasty (250B.C. – 0, Christian/Gregorian calendar, used hereafter) and Confucianism became the state ideology of Korea during the Chosen Dynasty in Korea in 1392. Then Confucianism was introduced into Japan via Korea in the year 285. During the period of the Tokugawa Shogunate, Confucianism was adopted as a state ideology. Confucianism also became an integral part of the warrior or bushido culture (Littrell, 2005). One well known piece of China's influence is Confucius philosophy of learning.

In a research investigation by Tweek and Lehma (2002), the authors discussed the Confucian's philosophy of learning in collectivistic East Asia. According to Tweek and Lehma (2002), the East Asian collectivist style of learning which is based on the Confucius' philosophy of learning has the following characteristics:

1. Effortful Learning (For Confucius, learning is closely tied to hard work).(Tweek & Lehma, 2002)
2. Behavioral Reform (Tweek & Lehma, 2002)
  - For Confucius, a primary goal of learning is behavioral reform by means of a deep internal transformation of the student.

- Confucius and his followers taught that behavioral reform is a central goal of education because virtuous behavior can ensure individual success and societal harmony.
3. Pragmatic learning (Tweek & Lehma, 2002)
- Confucius had a pragmatic orientation to learning;
  - Confucius believed that activities go deeper into learning are aimed at **self-improvement**, including becoming more virtuous and more skilled.
4. Acquisition of Essential Knowledge (Tweek & Lehma, 2002)
- Confucius urged students to learn the essentials and assured them that if they did, they would rarely miss the mark.
  - Confucius also claimed not to be creating ideas and excessive focus on generating ideas goes against the Confucian ideal of the modest, slow-to-speak individual focused on learning from respect to others.
  - Innovation is acceptable in certain contexts, but the tendency to innovate or criticize without extensive preparatory knowledge is a fault.
  - The acquisition of essentials is central to Confucius' conception of learning.
5. Respectful learning (Tweek & Lehma, 2002)
- Confucius expected learners to respect and obey authority figures and this contrasts with Socrates' habit of publicly humiliating authority figures.
  - Confucius (479 B.C.E./1947) is reported to have said that “to honor those higher than ourselves is the highest expression of the sense of justice” (Tweek & Lehma, 2002)

Also, literature reviews revealed that East Asian students tend to be more attentive to their social context and view themselves as more adaptable to situations and improvable in comparison to their counterparts in North America. Pratt (1992) argues that learning styles may vary from culture to culture therefore people in different cultures can be motivated to learn in a very different way. In his argument, Pratt (1992) believes that people's cultural backgrounds have been playing a significant role in fostering their purpose of action and, directing their behavior. As compared to North American culture, which values individualism and tends to cultivate people to "possess a clear goal of view oneself positively" (Roger, 1951, Taylor & Brown, 1998, & Heine, 2001) and to esteem self-enhancing motivation, people in East Asian culture are more inclined to be self-critical and embrace constructive criticism to improve themselves. In other words, after receiving compliments about their progress, East Asian students would expect constructive or even critical suggestions for improvement despite their acknowledged achievements. According to Heine et al. (2001), many practices in contemporary East Asian cultures, such as conversational scripts that stress on constructive criticism, empathy, and sympathy (Condon, 1986; Iwatake, 1978; Kitayama & Markus, 1999), are grounded on this model of the self and this view of self has been importantly shaped by Confucian thought (Heine et al., 2001). Therefore, receiving the feedback about their progress and suggestions concerning their further improvement, East Asians will work harder to correct shortcomings for self-improvement. Self-improving motivation comes as a result of "intention to live up to the expectation of relevant others" (Kitayama, Markus, & Kurokawa, 2000, p.98) because people in

collectivistic societies are more connected to their living environment and social contexts in self-perceptions (Erez & Somech, 1996) Based on this cultural characteristic and on the Western perception of self, East Asians are perceived by the Western culture as interdependent construal (Markus & Kitayama, 1991). In East Asia, “motivation to fit in is stronger in cultural contexts that encourage people to maintain strong relationships with others.” (Heine, 2007, p. 727) Accordingly, East Asian students, namely Chinese, Japanese and Korean students who share Confucius heritage (Heine 2001) believe that by studying hard and correcting their shortcomings, they will eventually improve themselves in order to live up to the expectations of relevant others (Kitayama et al., 2000). This concept resembles the Chinese saying that “勤能补拙 Chin Neng Bu Zuo” (in English: “hard work will make up for your deficiencies”) because they view themselves as individuals are more malleable and incremental (Heine, 2001; Heine et al., 2001) and ultimately improvable through efforts (Heine et al., 2001). East Asian culture, as has been traditionally influenced and shaped by Confucius thoughts, stresses more on the role one should play in his/her social group and to fulfill obligations to others that are associated with these roles. In East Asian culture, it is taken for granted that it is an individual’s role to act to achieve harmony within his/her social context (Heine 2001). It is almost one’s duty within their social group to live up to the standards of one’s roles and the individual is expected to master the skills necessary to carry them out (Heine et al., 2001). In their research study, Heine et al. (2001) suggested that individuals in East Asia cultural context would attend selectively to their own weak attributes that they perceive to be improvable (i.e., self-criticism). Hoshino-

Browne and Spencer (2000), Kitayama et al. (1997) and Heine (2007) indicated that self-improvement motivation, a desire to seek out potential weaknesses and work on correcting them, is a strong motivation in East Asian context. Moreover, Confucius' influence on East Asian self has also been reflected in the sense that in East Asia, the education system focuses more on individual efforts and, self-discipline and downplays individual's innate ability. Therefore, "with efforts and willpower, every person can achieve his or her goals" (Littlewood, 1999, p.82) and "such beliefs are an important foundation for motivation, since 'personal effort, unlike ability or chance, is within the control of the students'" (Dickinson, 1995, p.171)

The richness of Chinese history has left much wisdom to the Chinese descendants; many Chinese idioms have implied the importance of effort and the willpower of individuals. Such idioms as "世上无难事，只要肯攀登！ shi shang wu nan shi, zhi yao ken pan deng!" which in English means "there is nothing that is unattainable as long as you have the heart and will to work hard on it!" vividly reflect the concept of effortful learning. The aim of the effortful learning is to make self-improvement which in turn becomes East Asian's motivation for action and behavior.

Based on the East Asian students' self-improving motivation, it would be interesting to explore this question: Given that East Asians tend to believe that people's ability is incremental and effort can help attain the goals they have, will they be more motivated and confident in their learning if they visually see their own improvement and realization of their own goals? It is assumed to be some psychological changes after they discern their progress and goal attainment because previous research studies



documented Chinese to possess very individualistic self-perceptions in some context (Su et al, 1999). Also, with feedback and guidance from their instructor and with the encouraging words that were once given by one of their respected people, I would contend that they shall be more motivated and their confidence in learning will be strengthened.

By far, a good number of researchers have committed themselves to investigating motivation in a specific cultural context and motivational disparities in different cultures. Most of the research studies conducted to investigate motivation in cultural milieu were to compare in two major cultural contexts: Individualism vs. Collectivism or more specifically, the culture that values independence vs. the culture that values interdependence. Accordingly, North America and East Asia were chosen as the representatives of these two different cultures for investigation. In their research study, Heine, Takata, and Lehman (2000) investigated self-enhancing motivation, and the research results indicated that East Asian Japanese exhibit less self-enhancement than North Americans as shown by measurements they used, which were mostly self-employed questionnaires. Though this study provides further evidence that East Asian Japanese are more likely to attend to improvable parts in an obvious effort to correct them (Heine, Takata, & Lehman, 2000) and that North Americans tend to view themselves more positively, the research did not indicate or imply how their research findings can be utilized in practical educational and training settings. Bond and Cheung (1983) used TST (Twenty Statement Test), which was developed by Kuhn and McPartland (1954) to investigate how North Americans (United States) and East Asians

(Japanese, Hong Kong Chinese) construe themselves in their cultures. The research result revealed that there are disparities among the three ethnic groups in terms of how they perceive themselves and found out that even though Japanese and Chinese belong to the same cultural group, they still vary in terms of self-construal to some extent. However, this research study did not imply how the educators and training specialists can benefit from their research findings and what the research findings' weaknesses and strengths are for future professional practices. Koda-Dallow and Hobbs (2005) attempted to investigate the effect of goal setting on foreign language learning (Japanese in particular). The intention of this research study is to testify the goal setting effect and learning autonomy in the language learning and in this research; students were deliberately divided into an experimental group and control group. In the experimental group (goal group), students were asked to set weekly goals for five weeks, whereas the control group (non-goal group) had no goal-setting activities. The instruments used in this research study were pre and post-goal-setting questionnaires, weekly goal setting sheets and an interview schedule. The result of this research experiment revealed that there is no significant difference between the two groups. However the questionnaire revealed that students' self-confidence and efficacy have been greatly enhanced after using the goal setting strategy. This is definitely an inspiring goal setting experiment, but the result of the experiment can be more comprehensive and inspiring if students were allowed to pace their own learning progress and visualize their progress. Positive self-implication derived from progress visualization may make a significant difference between the experimental group and control group.

Heine et al (2001) conducted a research in which they adopted a version of the Remote Associates Test (RAT), which was originally developed by Mednick (1962) as a test of creativity. The RAT permits feedback which is veridical with subjects' actual performance experience (McFarlin & Blascovich, 1984). In the study by Heine et al (2001), the RAT was used to test students on their perception on the aspects of persistence in learning. 60 Canadian introductory psychology students (34 woman and 26 men) at the University of British Columbia (UBC) were selected as the representatives of the Western sample and 76 Japanese introductory psychology students (31 women and 45 men) at the Kyoto University (KU) were chosen as the representatives of the East Asian sample. Participants were given a version of the RAT in which they were shown three words and asked to generate the one word that related to the other three words. In this study, 160 RAT items were created (80 in Japanese and 80 in English) and pre-tested them in large classes in Japan and in Canada. The result of the study indicated that Canadian students tend to persist longer on the tasks with which they have been successful before while Japanese students behaved oppositely. This discovery was very illuminating because it shows that not only does culture influence people's motivation in learning but also it indicates that North Americans and East Asians can be motivated quite oppositely. Nevertheless, in this study, only Canadians and Japanese were selected as the representatives of North Americans and East Asians, respectively. Therefore it is quite possible that people in the United States and China, which both are equally North American and East Asian cultures, would result in a different outcome in the study. Moreover, this culturally based research provided

empirical evidence that the cultural disparities do exist between North America and East Asia. Further studies such as goal setting strategy are recommended to ground on their research findings.

After the review of research studies on motivation and the research studies across cultures that have used different methods and designs in investigating and measuring the impact of culture on North American students and East Asian students' motivation in learning, it is notable that even though the researchers pointed out how people in East Asia can be motivated to learn and how they perceive themselves, they did not provide implication and direction as what specific motivational strategies can be utilized to help motivate students from East Asian China to learn and to help strengthen their self-confidence. Concern with this issue, I would like to propose a new goal setting strategy, based on East Asian self-improving motivation, to help East Asian students to maintain their motivation and strengthen their self-confidence. In this regard, Chinese students are chosen as the representative of East Asian students.

In switching from specific to general it is necessary to provide the general theoretical foundation for this dissertation research study. To begin with, I intend to start with goal setting as the focus of this study is on the goal setting in East Asian perspective. Then, the questions are: why should we set goals for learning and why setting goals can help motivating people and be more self-regulating?

## Self-regulated Learning and Goal Setting Strategy for Motivation

Every assignment has a due date and students need to manage their time to accomplish their assignments and commit themselves to their learning goals before that due date. However, the issue of keeping students committing to their learning and achieving their learning assignment has been a big concern because if students are not committed and do not manage time properly, they may not be able to accomplish their learning efficiently. Accordingly, we will need to plan ahead in order to be efficient in our work because “most human behavior, being purposive, is regulated by forethought” (Bandura, 1991, p.248). But, how people plan to accomplish their self-set goals for their given assignments varies from individual to individual, whether they are Westerners or East Asians because people are different and they perceive their ability and the difficulty of their assigned tasks differently. Bandura (1991) also indicated that people are reflectively capable in exercising some control over their thoughts, feelings, motivation and actions. Therefore, if the students have volition in their own learning to some extent, they should feel more comfortable since they have more control of their learning in terms of how much they want to learn for a specific day, and what kind of learning strategies they want to use. Accordingly, I believe that by letting students create their own learning sub- goals and pacing their goal attaining progress, we can help them to create an open learning environment. In the open learning environment, the individual makes his/her own determination and decisions based on his/ her own needs, perceptions, and experiences, and individual identifies resources available to support

learning efforts, and to help formalize and evaluate personal beliefs (Land & Hannafin, 1996). By letting the students have more autonomy in their own learning, hence creating their own open learning environment, “it can help support the individual’s efforts to understand that which he or she determines to be important” (Hannafin, Hall, Land & Hill, 1994, p. 48).

Moreover, even though East Asians are more attentive to their social context, it is also true that their sense of self efficacy can be strengthened because regardless of cultural disparities, if people see themselves obtain progressive mastery, it will strengthen their personal efficacy, foster efficient thinking, and enhance performance attainment (Bandura, 1993). So, in order to avoid unnecessary social comparison but still provide social influence, the feedback from their instructor, both positive and critical, is recommended to be used for enhancing East Asian students’ motivation. Also, it is recommended that the students themselves will need to set their own goals in order to regulate their action and focus on their own goal attainment.

Numerous studies have been conducted to illustrate the benefit of goal setting and how setting goals can help facilitate students to maintain their motivation in learning.

A goal can be defined as “the purpose toward which an endeavor is directed; an objective” (e.g., <http://dictionary.reference.com/search?db=&q=goal>). Locke, Shaw, Saari, and Latham (1981) defined goal by suggesting that “it is what an individual is trying to accomplish; it is the object or aim of action” (p.126). Literature that has been reviewed indicates that goal setting helps students learn more purposefully and become more committed if they know what specific things they are to learn upon their endeavor.

Goal setting helps students focus on their learning because the “goal serves a direct function; they direct attention and effort toward goal-relevant activities and away from goal-irrelevant activities” (Locke & Latham, 2002, p. 706). Accordingly, students engaged in learning will be more focused on learning and outperform themselves or others if they know what specifically they are trying to achieve and what specifically they will be able to accomplish. Individuals who have goals that are specific and challenging tend to outperform those with vague goals that are not specific and measurable (Latham & Locke, 1979). Goal setting is one of the optimal strategies to help students consciously regulate their action to achieve their desired outcome as conscious goals affect action (Ryan, 1970) and “it seems a simple fact that human behavior is affected by conscious purpose, plans, intentions, tasks and the like” (Ryan, 1970, p.18). Many researchers have indicated that goal setting practices can be useful (Gabb, 2001) and, can affect academic achievement (Schmidt et al., 1996; Schunk & Swartz, 1993). The studies conducted by those researchers found that retention rates in the goal-setting group were higher at 71%, compared to 45% for the group that did not set goals (Meader, 2000). Goal setting therefore, can be an ideal strategy to present conscious purpose because Latham and Locke (1979) indicated that sufficient research studies indicate that goal setting has proven to be one of the major, if not only, mechanisms affecting motivation.

Still, the obstacles that students with goal learning may encounter are still numerous. One specific obstacle is how students can continually commit themselves to their goal of keeping their motivation to learn and to build their confidence and self-

efficacy in learning. In order for the students to be more committed to their goal attainment, specific and attainable goals should be set so that students will have the clear vision of what to expect and what to achieve. As a result, goal-setting needs goal specificity, namely, what specific goals the instructor wants their students to achieve and what specific goals the students themselves want to achieve. Goal specificity refers to the extent to which goal levels are represented in a quantified rather than vague form (Frost & Mahoney, 1976) and was operationally defined by “the exact number of performance units signified on the goal index card” (Mossholder, 1980, p. 204). Therefore in order to facilitate students achieve their learning objectives, letting students set specific learning goals can be an effective strategy to improve their learning performance. Gary and Braver (2002) stressed the importance of specifying the goals by stating that there is a direct link between goals and the activation of specific cognition. Markman, Brendl and Kim (2007) also pointed out that more specific goals would provide the scope of the desired objectives in comparison with general needs that may just provide motivational energy. Literature on the necessity of goal-setting and the importance of specific goal-setting have proven that goal setting has been one of the most viable strategies to maintain people’s motivation in action and to help them achieve their desired outcomes. As indicated earlier, it matters not if people set their own goals or are given goals by their instructors because either way, they expect to achieve their goals either for self-satisfaction or external rewards.

Nevertheless, according to previous research findings, how strongly one expects to achieve goals is influenced by task specific beliefs such as beliefs in his/her ability,



the perceptions of task difficulty and the perceptions of individual experiences (Wigfield & Eccles, 2000).

Everyone interprets their ability and their own previous experience differently. Therefore, it is necessary for students to have their own learning goals and control their own learning progress with their instructor serving as their facilitator on the side to ensure rational and reasonable goal setting. Also, by allowing students to set their own sub-goals, they will be more motivated to take action to accomplish their own goals and commit themselves to goal pursuits because previous research results evidently show that self-set goals, especially challenging goals increase intrinsic motivation (Wegge & Haslam, 2005). It is also equally important for teachers to help their students be more self-regulated and to help them control their learning pace as “teachers must be able to empower their students to be self-directed learners who are capable of goal setting, self-monitoring, self-assessment and self-correction” (Mok, Lung, Cheng, Cheung, & Ng, 2006, p. 416).

There are many research studies that have been conducted to investigate the effect of goal setting, but very few goal setting strategies have been operated based on the cultural perspective let alone goal setting strategies conducted to investigate East Asian students. Concerned with this issue, this particular dissertation research study sets out to investigate student’s self-created goal setting strategies that are grounded on their cultural characteristic. The literature reviewed on previous goal setting research studies helped illustrate the necessity for conducting this dissertation research.

## Goal Setting Strategies: A Brief Literature Review

During the past few years, many research studies have been conducted on goal setting with most of the goal setting research aimed at the change of behavior before and after the intervention. Many of the goal-setting strategies are either verbal narration or text descriptions and some of the strategies used were action plans (AP). In Job and Brandesttater's (2009) research study, they aimed to investigate the correlation between implicit motive and affect-focus goal fantasy (AF). In their particular study, the research sample which consisted of students from different departments in the University of Zurich were given scenarios where there were 15 possible goals they might strive for at a new place, and the goals they confronted were in the form of the goal setting questionnaire such as "I want to perform better than expected from somebody in my position." In Elliot, Shell, Henry, and Maier's (2005) research that examined the effect of achievement goals on performance attainment and the moderating role of performance contingencies, the research method of setting goals was mostly verbal statements made to the students. The goal statements such as "to prove that you are an exceptional player", and, "to learn to play the game" (Elliot et al, 2005, p.634), were used as goals to stimulate participants' motivation. In Wegge and Haslam's (2005) research experiment on the effects of three group goal setting strategy, 30 groups (n=120) participated in solving brainstorming tasks under four different group goal conditions: do your best (DYB), directive group goal setting (DGGS), participative group goal setting (PGGS), and PGGS in combination with individual goal setting

(PGGSTIGS). This particular experiment consisted of three trials in which each trial lasted for three minutes to test the effect of goal setting. The first trial was a practice test, and the second one instructed the participants to “do your best” (DYB) in order to establish the baseline for group performance. Then in the following trials the goals were set by group discussion and brainstorming as to how participants wanted to complete their assigned tasks.

In the above discussed research studies, the goal-setting methods they used represented the verbal statement goal setting which had no detailed strategies and progress visualization. They also did not indicate the specifics of their goals but it could be due to the nature of their assigned tasks. Though, by accomplishing their goals, whether achievement or learning goals, the students may be content with their achievements, what it would be like if they could visually notice their goal attainment in the form of a progressive line? Also, how will the students trace their progress when they are demotivated? When the students meet challenges, how would they be sure that, based on their past achievements, they will be have the confidence to embrace their new challenge and to proceed? Of course, many other goal setting strategies do have the specifics and detailed schedule for goal attainment. In MacGregor, Handley, Wong, Sharifi, Gjeltema, Schillinger, and Bodenheimer (2006)’s research study on collaborative goal setting between clinician and patients, action planning techniques were used to assist with goal-setting between clinician and patients. In order to help the patients to achieve their recovery goals, the clinician provided a variety of categories for the patients to work on and then finally decided on the patient’s action plan on how to

get better. Then again, in this particular goal setting research, though patients had more control over their own recovery plan under the guidance of their clinician, and could visually see what they would achieve and what they had achieved, but what would be the psychological and mental result if the patients could see their achievements in the form of a progressive line? After all, people need to see that they are making progress upon their efforts; they want to see that their achievements have resulted from their step-by-step efforts and are traceable. In Forneris, Danish, and Scott's (2007) research study, they set out to investigate the effect of goal setting strategy on adolescents' ability development. By initiating the Going for the Goal (GOAL) program where students learned to develop a sense of personal control and help them to develop a positive outlook on their future, the students in the experimental group became more specific about their goal setting and learned to breakdown their goals into a step-by-step fashion. This goal setting strategy made goals more specific but does not provide students with the visual picture on their goal achieving progress and how they can trace their goal attainment in order to strengthen their confidence and motivation in learning.

Deshon, Kozlowski, Schmidt, Milner and Wiechmann's (2004) research study on goal setting investigated the effect of multiple goal and multi-level feedback on individual and team performance and found that higher goal setting and feedback make people engage more in tasks and have higher levels of performance. In Elliot, Shell, Henry, and Maier's (2005) research investigation on achievement goals and performance goals, they discovered that participants in avoidance goal performed worse than those in approach goal but no difference between performance approach

and master goal participants. In research study, Salovaara (2005) utilized target goal setting strategy, and students in the goal setting group had a better performance result. Seijts, Latham, Tasa, and Latham (2004) proved that specific and challenging goal setting generates positive performance result. Roach and Elliot's (2005) goal attainment scaling approach further corroborated the benefits of specific and measurable goal setting strategy.

Some goal setting research studies set out to investigate perceived self-efficacy and goal setting. Missiuna, Pollock, Law, Walter, and Cavey (2006) investigated perceived efficacy and goal setting system (PEGS) and found that participants were likely to stick to what they were familiar with before and stick to the same choice of goals in the second goal selecting phase. Likewise, Latham and Brown's (2006) research study on goal setting and self-efficacy, satisfaction, and performance discovered the positive correlation between self-efficacy and learning goal setting, distal goals with proximal goals. Latham, Seijts, and Crim's (2008) study on the effects of learning goal difficulty level and cognitive ability on performance displayed that the difficulty level of the learning goal is positively related to performance, and they discovered a positive relationship between goal commitment and task performance.

In Brown and Latham's (2006) research study on verbal self-guidance (VSG) they indicated that necessary training is needed to generate positive result in VSG but VSG without specific direction did not generate satisfying outcome. Gropel and Steel (2008) looked into the relationship between goal setting and procrastination. They found that people who were high in goal setting scored low on procrastination. In other words,

goal-setting impels people in their task engagement and perform. Senecal, Loughhead, and Bloom's (2008) team goal setting and cohesion research provided evidence as to how goal setting can help team perceive team cohesion.

All of the discussed goal setting studies have presented the positive outcomes of goal setting and have provided evidence as to how goal setting can help improve desired performance outcome. However, none of the goal setting research studies mentioned and investigated utilized guided volitional, specific, and measurable goal setting strategies not to mention the goals that are visually manifested to help present their learning progress. In concerned with this issue, I felt there was a need to touch on this specific area and contribute to the field of motivational studies as well as instructional design.

After a careful review of all extant goal setting research, no study has been found to address student self-created goal setting from a cultural perspective, especially focusing on how methods for visualizing goal setting progress can positively affect learner motivation and confidence. This gap in the literature motivates an investigation into this area. Through such a study, we may discover how visualization of self-set goal attainment progress can influence learners' motivation and self-confidence in learning.

### Students' Motivation in Expectancy Perspective

Whenever people decide on doing something, they are actually expecting a reward from their action, whether consciously or unconsciously. Based on their expectation for their desired outcome, they will decide how much effort they wish to exert to achieve their expected goals. By letting students set their own learning goals for a particular learning assignment, they will be better able to be consciously aware of their chosen learning responsibility and to have the feeling that they are able to achieve. According to Vroom (1964), "People consciously choose a particular course of action, based upon perceptions, attitudes and beliefs, as a consequence of their desires to enhance pleasure and avoid pain" (Issac, Zerbe, & Pitt, 2001, p. 214).

Likewise, when students have the freedom to set their own goals, their instructors are actually giving them an opportunity to have their own desired expectations for success. If the students feel that they have the chance to achieve what they expect, they will be more motivated, thus working harder to attain their own set goals. Porter and Lawler's (1968) self-developed theoretical model suggests that an individual's expenditure of effort will be determined only when his or her expectations of outcome may be attained and based on the degree of value placed on an outcome in the person's mind (Pinder, 1984). According to the East Asian Chinese's self-improving motivation, we can infer that, if making efforts can help correct their shortcomings thus making progress, and they are becoming better and living up to the expectation of their concerned ones, they will make more efforts to achieve their own set goals. But for

effort to occur, “two necessary prerequisites are specified (1) the person must value the task and (2) the person must believe he or she can succeed in the task” (Hodson, 1998; Small, 1997). As a result, by giving the students volition to set their own goals, it can help them value their assigned task more than what their instructor expects them to achieve. Also, in order to have students believe in their chance in succeeding in their task, students must have the reachable goals that they believe will be in their own control in a step-by-step way. Moreover, in a cultural perspective, while letting the East Asian Chinese students have the control of their own pace of learning, namely self-created goal setting, they also receive guidance and constructive feedback from their authoritative person, teacher in this regards, it is assumed that their confidence in succeeding will be enhanced as well. The teacher’s feedback and support can be interpreted as “immediacy behavior” (Gunter, 2007). And immediacy behavior is defined as “those behaviors that help build close relationships or feelings of closeness” (Gunter, 2007, p. 197) and research has shown that immediacy behaviors do impact cognitive learning. According to Krathwohl, Bloom, and Masia (1964), immediacy behaviors help students foster connectedness and engagement in learning to have stronger momentum in making progress and “a positive association results in changes in student behavior, such as increased time on task, which also impacts cognitive outcome” (Gunter, 2007).

Why should expectancy theory be one of theoretical foundations for this particular strategy? Expectancy theory refers to a set of decision theories of work motivation and performance (Vroom, 1964) and according to Ferris (1977), this theory



assumes that, depending on the subject's probability estimation that effort will result in certain outcomes, an individual will decide how to select the behavior to engage in and the level of effort to be exerted. Ferris (1977) also indicated that "an 'expectancy' refers to a momentary belief about the likelihood that a particular act will be fulfilled by a particular outcome" (p. 606). Eveleth and Stone (2008) interpreted expectancy as "an individual's belief that by accomplishing a task, a desired outcome is attained" (p. 136). Indeed, we behave and take an action expecting certain outcomes and hope that our action will bring the desired achievements. Sometimes the goal setting is conducted with purpose, and other times it is conducted without purpose. Either way, we expect to achieve something that we think will be valuable for our exerted effort. The more valuable we consider it to be, the more effort we are motivated to make to obtain our desired outcome. Porter and Lawler's (1968) expectancy model suggests that individuals feel motivated to take an action when they perceive that the amount of effort they make will result in an acceptable level of performance which, once it has been achieved, will result in a specific outcome for that person. Also, the outcome attained should be personally valued. As a result, the expectancy theory provides a rational foundation for this proposed research investigation.

Therefore, by letting the students set their own learning goals on a progress chart, they will establish their expected outcomes, and those goals will drive them to fulfill their expected outcome. In other words, according to the expectancy definition, the outcome has already been postulated by the students themselves, and it is their choice to make a decision about what to achieve on the progress chart, hence they would value it more

than the goals someone else set for them. So they should make an effort to meet their expected outcome on the progress chart in order to progress and to achieve their subordinate as well as terminal goals.

### Students' Motivation in Self Determination Theory Perspective

The question now is why students should set their own goals with the supervision from their immediate authoritative person since the purpose is to give the students volition in setting their own goals? Also how could letting them visually see their progress and goal attainment on their own paced progress chart be useful? Bruning, Schraw, Norby, and Ronning (2004) suggested that when students take an active role in their learning, they are more likely to attribute their success to themselves versus attributing their success to an external supervisor. When a student attributes success to him/herself, that student is more likely to focus and maintain their attention on the subject; as a result, interest and motivation towards learning increase. However, due to the fact that in some cultures, specifically in the cultures where collectivism is valued, autonomy of learning is not strongly encouraged, it seems that to let the students have the ownership of learning will not bring them positive performance outcomes. Because in collectivist societies, specifically in East Asia where Confucius philosophy of learning play an important role in educational system, learning from an expert is strongly encouraged and stressed and speculating on one's shortcomings for further improvement is highly regarded. In this sense, relating one's study to the guidance of an

authoritative expert would be more beneficial to learning because “Confucius (479 B.C.E./1947) is reported to have said that ‘to honor those higher than ourselves is the highest expression of the sense of justice’ ” (Tweek & Lehma, 2002, p.332), students are more likely to take the advice from their instructors. In order to explain the apparent contradiction of autonomy and relatedness in learning, Ryan and Deci’s (2000) self-determination theory (SDT) provides a theoretical explanation as to how people can be motivated to act and to learn in the aspect of people’s inherent growth tendencies and innate psychological needs. They indicated that

*The needs for competence (Harter, 1978; White, 1963), relatedness (Baumeister & Leary, 1995; Reis, 1994), and autonomy (deCharms, 1968; Deci, 1975) appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being (Deci & Ryan 2000, p.68).*

According to SDT, all people across cultures “possess a set of basic organismic psychological needs, the fulfillment of which promotes optimal functioning” (Vansteenkiste, Lens, Soenens, & Luyckx, 2006, p.273). The basic psychological needs are distinguished as autonomy, relatedness and competence and SDT maintains that, “on average, autonomy and relatedness are highly compatible psychological needs that should be positively correlated” (Vansteenkiste et al, 2006, p. 273).

It is very natural for people to expect the desired result for their performance in their personal endeavors, either for an external award or internal self-satisfaction.

According to Oettingen, Honig and Gollwitzer (2000), it is easier for students who have a vision of what they desire to develop a vision about attaining aspirations and achievements. Letting the students have the control of their own learning, either learning goals or learning strategies, can stimulate the students to be more self-proactive in envisioning their achievement and to have the inner desire to obtain such achievement because, “within SDT, the construct of *autonomy* concerns the self-endorsement of one’s behavior and the accompanying sense of volition or willingness” (Ryan & Deci, 2008, p. 189).

Zimmerman purported in his research findings that, in order to help students develop a sense of control or autonomy in learning, “they should be provided with some amount of freedom in choosing the content, methods, and performance outcome of learning” (Wu, 2003, p.503) and Self Determination Theory claims that people are naturally inclined to engage in activities that are experienced as self-chosen or volitional (deCharms, 1968; Deci & Ryan, 1985; Ryan & Deci, 2000). Nevertheless, in some cross cultural perspectives (e.g., Cross & Gore, 2003; Markus & Kitayama, 2003) “it seems that autonomy and relatedness are incompatible strivings so that the simultaneous pursuit of them causes inner tension, thereby undermining adjustment and well-being” (Vansteenkiste, Lens, Soenens, & Luyckx, 2006, p.273). This contention may seem to be more persuading for individuals living in collectivistic societies that place more on social harmony rather than on individual expressiveness and autonomy (e.g., Markus & Kitayama, 1991). In regards with this issue, many research studies conducted to investigate the relationship between autonomy and relatedness and found that these

two variables are actually positively correlated. For instances, individuals can volitionally seek emotional support from others (Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005), they can feel supported to be self-motivated to pursue their personal commitments and interests (Soenens & Vansteenkiste, 2005), or they can stick to social norms and requests because they reflectively regard them as important in doing so (Ryan, 1993; Vansteenkiste, Zhou, Lens, & Soenens, 2005). As illustrated in these cases, individuals experience a sense of connectedness with another person or with the culture at large while simultaneously acting in a volitional (i.e., autonomous) fashion (see also Blatt & Blass, 1996; Kagitcibasi, 2005 for a similar viewpoint). In a more specific cultural context, in order to clarify this seemingly contradiction, a research study conducted by Vansteenkiste, Soenens, and Luyckx (2006) provides empirical evidence for clarification of the conflict. In their research experiment, where they chose the Chinese students who have lived in Belgium for eight months as a sample, 66 male (54%) and 53 female (44%) Chinese students participated in this study. In this particular study, the researcher examined whether autonomy and relatedness would be compatible as suggested by Self Determination Theory, or whether autonomy and relatedness would conflict with each other, so that the pursuit of autonomy would hinder the development of relatedness, thereby resulting in lower well-being, as suggested by cross-cultural researchers (e.g., Cross & Gore, 2003; Markus & Kitayama, 2003). Their research result confirmed that “both autonomy and relatedness satisfactions represent two highly compatible basic psychological needs, the satisfaction of which is also critical for individuals living in a collectivistic society” (Vansteenkiste et al. 2006, p.280).

Accordingly, it is reasonable to claim that the motivational strategies that combine both autonomy and relatedness will be efficient in an East Asian cultural context to help motivate students to learn.

Similar to the significance of autonomy and relatedness in boosting the motivation, moreover, it is equally important that they should believe that they have the competence to attain their desired goals because the feeling of being competent and volition are important for intrinsic motivation (Gagne & Deci, 2005). The educators and teachers' ultimate goal for students' learning is to improve their learning performance. Nevertheless, educational researchers are more interested in how we can get students learn and how we can maximize their intrinsic motivation to learn. If we recall our own past learning experiences, we all learn based on two major reasons: First, we learn because we feel it is useful or interesting to us (in that it means the intrinsic target values of our endeavor). Second, we learn because we need to or have to (I interpret it as extrinsic target values of our endeavor). Either way, before we learn we assume that we have the competence to master the target information or skill, and the stronger the perceived self-efficacy, the higher the goal challenges that people set for themselves and the firmer is their commitment to them (Bandura, 1991).

People have different beliefs as to what they can do and what they can accomplish because a person's performance can be strongly impacted by his/her flexible self-efficacy thinking even he/she has the same knowledge and skills (Bandura, 1993). Accordingly, they will plan to finish their expected goals based on their self-perception of their ability and decide on how much effort they will need to make.

Therefore, letting the students set their own goals according to their self-perception of their ability and past learning experience will let them be more comfortable in controlling what they can do because people tend to rely heavily on their previous performance in evaluating their ability to execute and set their goals (Bandura, 1993). So, I assume that once their first set goal has been achieved, with the positive feedback and constructive suggestions from their instructor, East Asian Chinese students will feel more confident and more motivated in their following goal attainment as “performance feedback that focuses on achieved progress underscores personal capabilities” (Bandura, 1993, p. 125) and that may enhance their self-concept of being an effective achiever in their own created goals.

Now, people may contend that the students could fail in their goal achievement and the awareness of their failure could be discouraging and offset their sense of efficacy (Bandura, 1991) and feedback indicates that shortfalls highlights personal deficiencies (Bandura, 1993). However, according to the previous literature review on East Asian characteristics of learning, East Asian Chinese students would be more attentive to their shortcomings because their “self-improvement motivation, a desire to seek out potential weaknesses and work on correcting them, is a strong motivation in the East Asian context” (e.g. Hoshino-Browne & Spencer, 2000; Kitayama et al, 1997; Heine, 2007). Weiner (1986) and Wu (2003) also indicated that in an East Asian context, where learners with strong belief in hard work bring success, the experience of failure may even serve as a stimulus to drive them work harder. This motivation is rooted in making efforts to make up for their shortcomings hence making improvement. All

positive feedback, on the other hand, does not alone play a significant role in keeping their motivation, but instead, the combination of both positive feedback and constructive critical feedback will radiate great impact on their motivation and confidence in learning. In this sense, it can be logically inferred that East Asian Chinese students will be motivated to persist in their learning by getting both positive and critical feedback from their instructors and by visually seeing the progress they have made. Also, it is very important to help students build a motivational learning environment where they can always visually see their own progress and avoid comparing themselves with other students because

*A learning environment that construe ability as an acquirable skill, deemphasize competitive social comparison and highlight self-comparison of progress and personal accomplishments are well suited for building a sense of efficacy that promotes academic achievement* (Bandura, 1993, p. 125).

As a result, other than letting students feel that they have the ownership of their own study and that they are supported by their credited authoritative person, it is equally vital to let students see their progress and make them compare their current achievement with their previous achievements. By letting the students do so, the researcher believes that the students can be more focused on their own progress thus improving their self-efficacy or self confidence in learning, especially if they can get some guidance or suggestions from their authoritative person such as their instructor or professor.



Then the problem we are now facing is how the students can see their competence in achieving their learning goals? Of course, upon achieving their goals, they will gain the feeling of being capable but that is still something intangible and not visual. What would happen if the students could see their tangible progress and notice that they are making progress? The assumption is that the students' motivation and self-confidence in achieving their future learning goals will be greatly enhanced if they are given a chance to visually see the progress they have made. As a result, I hypothesize that letting students create their learning goals and visualize these goals on their self-paced progress chart can enhance students' motivation in learning and strengthen their confidence in learning. Then, the role of the students' instructor becomes more of a mentor or a learning facilitator. The role of the suggestions from their supervisors, as Gagne and Deci (2005) stated, is that "satisfaction of the need to be connected to others and to be effective in the social world support people's tendency to internalize the values and regulatory processes that are ambient in their world" (p. 337). This is especially important in accordance with East Asian Chinese students' characteristics of learning.

Based on the theoretical foundations of culture, self-expectancy, self-determination and self-efficacy theories and the previous research findings of goal setting studies, I would like to investigate how the East Asian culture can affect their motivation and self-confidence in learning. By providing an East Asian culturally (self-improving motivation) related goal setting strategy to the East Asian Chinese students, I postulate that the students will be able to enhance their motivation and self-confidence

in learning thus improving their learning performance. In order to efficiently conduct this particular research study, it is very important to select a relevant and appropriate motivational model to guide the whole research process, and the following section depicts the motivational model for this specific research study.

### Research Model –ARCS Model

This particular research that intends to investigate motivation and self-confidence is based on Dr. John Keller's ARCS model.

In 1979, a set of motivational principles for learning were introduced by Keller and later, Keller (1983) described these principles in detail in a more panoramic and comprehensive perspective which synthesize other theories of motivation.

As Keller (1979) stated:

*In brief, we can say that in order to have motivated students, their curiosity must be aroused and sustained; the instruction must be perceived to be relevant to personal values or instrumental to accomplishing desired goals; they must have the personal conviction that they will be able to succeed; and the consequences of the learning experience must be consistent with the personal incentives of the learner (pp. 6–7).*

In fact, on the basis of comprehension and synthesis of literature review on motivation, Keller categorized these principles into four types (Keller, 2008):

1. the primary area of influence is on gaining learner attention;

2. to establish the relevance of the instruction to learner goals and learning styles,
3. to build confidence in regard to realistic expectations and personal responsibility for outcomes;
4. and to make the instruction satisfying by managing learners' intrinsic and extrinsic outcomes.

Keller's theory (1983) has developed from its first appearance to what is known now as the ARCS model (Keller, 1984, 1987a, 1999b), and ARCS is the acronym resulting from the four categories of motivation: Attention, Relevance, Confidence, and Satisfaction. However, the ARCS model was later expanded by Keller (2008) to include volition (Kuhl, 1987) and self-regulation (Corno, 2001; Zimmerman, 1998). These two concepts "help supplement motivation by describing and explaining learners' attitudes and behaviors that help them overcome obstacles and persist toward the accomplishment of their goals." (Keller, 2008, p. 176)

According to Keller (1984, 1987a, 1999b), Attention is interpreted as the promotion of learner's motivation based on arousing learner's curiosity:

In this category, Attention refers to gaining students' attention to build learner's curiosity, and to maintain learner's active engagement in the learning activity. In the previous research studies on curiosity, arousal, and boredom (Berlyne, 1965; Kopp, 1982), the researchers have illustrated the importance of using a variety of strategies, such as graphics, animation, visuals and any kind of events that introduces disparities.

These approaches utilized in the research studies have been proven to be effective but after people adapt to routine stimuli, "no matter how interesting a given

technique or strategy is, they will lose interest over time” (Keller, 2008, p.177).

Accordingly, it is very important to find a strategy that can help students focus on their learning goal. By visualizing students’ learning progress in a consistent and progressive way, I assume the students do not want to be interrupted in the learning progress and therefore maintaining their attention in learning. This assumption is based on my personal learning experience.

Other than helping learners cultivate interest in learning, the learner also needs to know whether or not the learning is in his or her interest and how this learning is in association with his or her interests. According to ARCS, this principle is represented in the category as Relevance. Therefore for a stronger level of motivation to be achieved, the learner should be “self-determined” (Deci & Ryan, 1985) and should “experience intrinsic goal orientation by being engaged in actions that are personally interesting and freely chosen” (Keller, 2010, p.308). Therefore, the strategy of letting the students freely set their own learning goals and pace their own learning progress, they would feel the learning be more relevant to them thus enhancing their motivation.

As equally important to Attention and Relevance to promote motivation, learner’s belief that they will succeed in their own learning can also help improve their motivation. This particular principle in motivation is presented in ARCS model as Confidence (C). According to Keller, confidence is achieved by helping students establish positive expectations for success and then experience success under conditions where they attribute their accomplishments to their own abilities and efforts rather than to external factors such as luck or task difficulty (Weiner, 1974). On the other hand, if the learners

feel that the achievement they made is the result of good luck, they are unlikely to develop their confidence. In another perspective, if students focus more on the task or the process of learning, which are controllable foci of effort, then they are more likely to be easy with their own learning thus having more confidence to expect the positive result of their learning performance.

Likewise, motivation is promoted when learners expect and experience satisfying outcomes to a learning task, which highlights the fourth principle of motivation in the ARCS model. This category is presented as Satisfaction (S). In order to help learners to be motivated, it is necessary for learners to have positive feelings about their learning and to develop continuing motivation to learn (Maehr, 1976).

Last but not least, in order to develop and sustain learner's motivation to learn, it is beneficial to investigate realization motivation (Kuhl, 1987), or volition, which Kuhl (1987) defined as a mediating factor that "energizes the maintenance and enactment of intended actions" (p.90). As a result, in order to achieve learning goals, it is of vital importance that a strategy will be adopted to help students feel that they in control of their own studies and that the pace of learning is in their hands.

As a result, the ARCS model serves as the research model to guide this particular research study which put its emphasis on the two categories such as Relevance (R) and confidence (C) within this motivational model while addressing on Volition as well.

Firstly, this student's self-goal creating strategy let the students to set the English words improvement goals is based on the availability of their time and how their learning

plan thus making their learning more relevant to themselves as they choose their own learning pace and have the ownership of their own learning.

Secondly, in order to enhance learner's self confidence in learning, this goal setting strategy let the students set the objectives that they felt they could achieve through their own efforts; and with instructor's suggestions and guidance (hence in East Asian culture, the respected authoritative person's suggestion make students feel secure with what they do), it is expected that students' self-confidence should be strengthened. Also, once they achieved their goals, which were set by themselves under the guidance of their instructor, and they visualize their goal attainment on the goal setting chart, their self-confidence should be reinforced based on their self-improving motivation.

Thirdly, because the students are given the volition to create their own learning goals, and select their own learning strategy under the guidance of their instructor, they have obtained control of their learning. As a result, they have been given the maximum autonomy to learn while at the same time still being assisted by their instructor. Accordingly, they shall then feel secure in their own learning progress and presumably, they should be confident and motivated in achieving their own goals.

The following table describes how this particular students' self-goal setting research is related to the ARCS model:

Table 2.1 ARCS Model Application

Four Dimensions	Kinds of Strategy (Keller, 1987b)	Model Subcategories (Keller & Litchfield, 2002)
<p><b>Attention:</b></p> <p>arousing and maintaining learner's interest in the instruction or the learning process</p>	<p>Inquiry (The instructor will inform the students that this goal setting strategy will help them improve their motivation and self-confidence in learning to arouse student's curiosity)</p>	<p>Inquiry arousal</p>
<p><b>Relevance:</b></p> <p>Relation of the instruction or the content to the learner's personal goals; importance to the learner.</p>	<p>Experience Present worth Future usefulness Need matching choice</p>	<ol style="list-style-type: none"> <li>1. goal orientation</li> <li>2. motive matching</li> </ol>
<p><b>Confidence:</b></p> <p>Learner's expectancy, feelings, control for success (e.g. ability to learn or perform a task as the result</p>	<p>Expectations Self confidence</p>	<p>Success opportunity Personal control</p>

of learning).		
<p><b>Satisfaction:</b></p> <p>Learner's sense of achievement regarding the learning process or experiences reflected through extrinsic or intrinsic factors</p>	<p>Natural consequences</p> <p>Positive outcomes</p> <p>scheduling</p>	<p>Intrinsic reinforcement</p> <p>equity</p>

**Note:** Table was adapted from Mao, J. & Thompson, M. (2007)

### Conclusion

Based on the literature review and discussion, the East Asian Chinese students' characteristics and motivation in learning have been proven to be very different from their North American counterparts. The variables that influence East Asian Chinese can be more contextual rather than individual. Therefore Chinese students can be motivated more for self-improvement to fit in their social context rather than striving for personal realization only. North American students, on the other hand, can be of opposite. However, it would be interesting to investigate the motivational variation for the East Asian Chinese students before and after they virtually and cognitively discern their progress upon their efforts. It is assumed that with the increase of motivation, self-confidence will also be enhanced as they are positively correlated. Accordingly the



performance result in association with the increase or decrease of motivation and self-confidence will be impacted. In the following chapter (Chapter 3), the description of how this particular research study was planned and conducted will be discussed.

## CHAPTER 3: METHODOLOGY

This chapter explains the methodology and method that were used in this particular research study. The main purpose of this study is to discover the effect of visualized student's self-created goals on East Asian Chinese motivation and self-confidence in learning. I will discuss, in this chapter, how I planned to achieve the purpose of this study. First, I will bring up the research questions that have guided the whole research process then I will list the hypothesis based on the findings of the previous research studies that have been discussed in the literature review section. In the intervention section, I will describe how I conducted my research. Thirdly, I will provide a rationale for choosing the research setting and discuss participants' selection then introduce the dependent and independent variables in my particular research. In the research procedure section, I will discuss my research steps and how my research was conducted. In the data source and collection section, I will address the data source and data collection methods. Data Analysis details the specific instruments and method that were utilized for analyzing the data collected during this study. In this research, Repeated-measures ANOVA were conducted to help measure the changes in students' motivation in learning and self-confidence before and after the treatment between the experiment and control groups.

Finally, a table that visualizes the methodology and research procedure will be provided for a better clarification of my research method and procedure. Upon completing this particular research study and based on the result of the data analysis, I

believe that the research result should provide useful information to instructional designers or educators for reference when designing motivational strategy in educational settings with international students from East Asia. The international education setting can be such places as the Center for Multicultural and Multilingual Studies in the University of Central Florida where the East Asian student population rate is comparatively higher than the average American school settings.

### Research Question

In order to provide a clear direction to guide the entire research procedure, the research brought up three research questions based on the previous research discoveries:

1. Do East Asian Chinese students, who have learned to use visualized self-goal-creating technique, displays evidence of greater self-confidence than before using the strategy and do they also display evidence of greater self-confidence than the East Asian Chinese students who do not learn how to use the technique?
2. Do East Asian Chinese students, who have learned to use the visualized self-goal creating technique displays evidence of greater self-motivation than before using the strategy, and do they also display greater self-motivation than the East Asian Chinese students who do not learn how to use these technique?
3. Do East Asian Chinese students, who have learned to use the visualized self-goal creating technique displays evidence of greater test performance than before using the strategy, and do they also display evidence of greater test

performance than the East Asian Chinese students who do not learn how to use the technique?

Based on the previous research discoveries, I hypothesize that:

*Hypothesis 1.1: There is a statistically significant difference between the control group and experimental group in motivation in the pre and post session of the research based on the same testing instrument*

*Hypothesis 1.2: There is a statistically significant difference for the experimental group in motivation between the pre and post session of the research based on the same testing instrument*

*Hypothesis 2.1: There is a statistically significant difference between the control group and experimental group in self confidence in the pre and post session of the research based on the same testing instrument*

*Hypothesis 2.2: There is a statistically significant difference for the experimental group in self-confidence between the pre and post session of the research based on the same testing instrument*

*Hypothesis 3.1: There is a statistically significant difference between the control group and experimental group in performance in the pre and post session of the research based on the testing instruments*

*Hypothesis 3.2: There is a statistically significant difference for the experimental group in performance between the pre and post session of the research based on the testing instruments.*

In order to answer the above question and testify the hypothesis, I would like to base my research investigation on the following theoretical perspectives:

### Theoretical Underpinnings

This particular research study is based on the following theories:

East Asian's self-improving motivation (Heine, 2001)

The theory of goal setting (Locke & Latham, 1990)

Expectancy theory of motivation (Porter & Lawler, 1968; Vroom, 1964)

The self-determination theory (Deci & Ryan 2000)

The self-regulation of social cognitive theory (Bandura 1986)

The self-regulated learning. (Zimmerman & Schunk, 1989)

### Intervention

In order to conduct this dissertation research, the researcher went to a Chinese university which was modeled on American University in a central province in China and established a research connection with some instructors in the foreign language college in that university. The researcher explained the reason for conducting this particular research study to the instructors who showed interest in providing facilitation for this dissertation research. The researcher finally made agreement with one instructor for providing facilitation in conducting this research. After the agreement was made, the researcher shared with the instructor the concept of students' self-created goals and pacing their own goal attaining progress on a visualized goal chart. To investigate this

research topic, the researcher used the strategy of letting the students set goals for memorization of English words in an English class because a review of literature indicated that goal setting, self-evaluation of performance against goals, and feedback from instructors are considered to be beneficial to language learners (Kato, 2009).

The reason that the researcher decided to choose English words memorization in an English class as the treatment strategy is that the language classroom can help create an opportunity to exercise the language classroom can provide the students the opportunity to have the experience of exercising proactive autonomy in the public domain (Littlewood, 1999), and “if the teacher manages this transition successfully, students will have opportunities to develop skills and confidence which they can transfer to wider public domain” (Littlewood, 1999, p. 88).

This research lasted for 7 weeks and it was composed of two stages. During the first stage of this research, the students were divided into two groups: the control group and experimental group (Non-goal group vs. Goal group). The reason for dividing the research participants into these two different groups was that the researcher intended to compare the intervention effect on the experimental group to the control group, for which intervention would not be used.

In the first stage, no intervention was implemented. The students in both control group and experimental group were given the same learning task to remember 200 words in three weeks. Also, they were given the same questionnaires and tests (as the pre-test) at the end of the first stage (the last Friday of the third week) to measure their learning outcomes.

In the second stage, the experimental group was given an instruction on how to set learning goals for themselves and how to pace their learning progress (goal attainment progress) at the beginning of the second stage (the 1<sup>st</sup> day of the 5<sup>th</sup> week of the whole research or the 1<sup>st</sup> day of the 1<sup>st</sup> week of the second stage). Also, the instructor notified the students in the class that they should report their goal attainment progress to their instructor at the end of each week (usually on Friday when the Question and Answer time is normally set and required by the administrative in the Foreign Language College). The instructor then gave them feedback (both positive and constructive feedbacks) on how they did with their goal attainment and how their peers were doing with their learning progress.

Following the instruction on how to set personal learning goals and how to pace the learning progress depending on the students' availability of time or motivation to exert efforts, the instructor talked to the students to solve their concerns or challenges about the goal setting strategy to help them create their own learning goals for their English words memorization. During the goal setting process, the instructor negotiated with the students on how many words they want to remember for the first learning goal and the goal negotiation continued until the students created the last goal for their English words learning. The students were the major decision makers as how he or she will set the goal and the instructor acted only as supervisors to provide suggestions or recommendations based on their expertise of knowledge.

After the goals had been created and the students had begun their learning, the instructor started to meet with students every Friday in the class and start a Q&A

session for a period of three weeks to keep track of students' progress and provide encouraging and positive feedback as well as critical suggestions concerning their goal attainment. Also, for each goal set by the students, they would write down their text description of each goal on their goal progress charts and were told that the goal description should be specific, clear and measurable. In addition, the students wrote down their favorite sentence or phrase that they considered to be very encouraging from one of their most respected people they have encountered in their life or the people they learned from their history course.

The researcher felt a period of three weeks would give the students enough practice in order to feel comfortable with their self-created learning goal and with the technique of self-pacing their progress under the supervision of their instructor.

### Research Setting

The setting of this research was a large Chinese University in central China. The reason to choose this university is that it is an American founded Chinese university. In this university, the education style they adopted simulates some educational principles from their American counterparts while at the same time still keeps the traditional Chinese educational path so the education this university delivers to the students is in a combination of both Western style and East Asian style. Moreover, central China is considered to be the origin of Chinese civilization so it would be the best research site for Confucius oriented East Asian educational research.



## Participants

The researcher used convenience sampling due to practical conditions and the availability of the researcher's time and the facilitator's time.

Prior to the study, human subjects approval was obtained from the UCF Institutional Review Board (IRB) (see Appendix A) and research consent form were obtained from IRB in UCF (See Appendix B). The participants of this particular research study were initially two classes of 106 first year college students whose age ranges from 18-20 years old and 84 of them were female students and 22 of them were male students. They were all from a foreign language college in the selected university in central China. The research participants were mainly composed of majority Han ethnicity because the school is located in Han Chinese province in Central China where the Confucius culture and philosophy of Education and learning has the strongest influence. After the research study, however, not all the research participants turned in their questionnaires or participated the pre and post-performance tests so the ones who did not turn in all their required documents were deleted from the data sheet to make data more consistent and reliable. Finally, altogether, a total of 72 students actually turned in their questionnaires and participated in the pre and post-performance tests: thirty-five (n=35) in the control group (non-goal setting) and thirty-seven (n=37) in the Experimental group (self-created progress goal setting)

## Research Procedure

The whole research was about seven weeks which includes the first stage of research for three weeks and the second stage of research for three weeks with one week break between the first stage and the second stage.

### Stage One

The researcher contacted the instructors in the target foreign language college and introduced his idea of helping students to create their own learning goals and pace their own learning progress toward English words memorization on the progress chart. The researcher paid the instructor about 300 dollars for cooperation. Then the instructor recruited his students who would voluntarily participate in this research study. Those who volunteered were given extra credit for their participation. Then they were read the consent form and the students were randomly classified into two groups: the experimental group and the control group. In the first three weeks, the students were asked to remember 200 words, which were chosen from their text book and in this stage, no intervention were taken for either group. ( the rationale for selecting the words based on the logical reasoning from a study by Milton and Meara (1995) using the Eurocentres Vocabulary Size Test (Meara & Jones, 1988, 1990) that “the average growth in vocabulary per person approached a rate of 2500 words per year” (Nation & Waring, 1997, p. 8). Therefore, it is reasonable for students to learn 55 words per week. But in order to test the effect of goal setting, the researcher intentionally raise the vocabulary improvement rate to 67 words per week and 200 words per three weeks in the first

stage and 83 words per week and 250 words per three weeks in the second stage)

After three weeks' learning both groups took the quiz on their word memorization result. Then the researcher compared their performance results. Likewise, the students were also given self-confidence or self-efficacy and motivation questionnaire as pre-questionnaire to test on their motivation in learning the English words and how confident they are in memorizing the assigned English words. In this way, the researcher was able to have the preliminary data on students' motivation and their self-efficacy belief in learning in order that he will be able to compare the post research data.

### Stage Two

In the first two days of the fourth week, the instructor used one class time, approximately 50 minutes to introduce the concept of self-goal creating and how to pace and manage their learning progress toward their self-created learning goals to the experimental group, while the control group was not given the instruction but they were required to follow the steps in the first stage of their learning experiment. Then they were given another 250 words to remember and these words were also retrieved from their text book. This time, they were required to create their own learning goals for remembering the given words and they were told to pace their learning goal attainment by themselves. The goals they created were visualized on their own goal progress chart (see figure 1 in Appendix C), and were presented as empty dots on the chart before they actually achieved that goal. Also, below the goal attainment progress chart, they were required to write down the text description as to how and when they would attain the self-created goal. In addition, they were also instructed to write down one

encouraging sentence or phrase from one of their most respected persons as a motivational stimulus. However, after they achieved their own learning goal, they were also instructed to fill in the empty dot themselves to visualize their progress and line up the filled dots to visualize the achievement they had made as a climbing line. After the experiment, they were given a quiz to test the result of their learning with the intervention being used. Their performance outcome was compared with the outcome from the first phase to examine the effect of the intervention. Also, they were given motivation questionnaire and self-efficacy questionnaire again (as post-questionnaire) to gather the data concerning their motivation and self-confidence variation in learning. Then the data gathered was used to compare with the data from the first phase.

#### Data Source and Collection

The data sources for investigating the research questions include (a) students' learning performance results collected after the students finished the English vocabulary test given by the instructor and (b) Students' motivation and self-confidence in learning via motivation and self-confidence questionnaires.

Data collection occurred in two stages: In stage one, participants from both the control group and the experimental group were required to complete the given learning task (to remember 200 English words in three weeks) and no intervention was implemented. After both groups finished the learning task, they were required to take a test to measure their learning outcome. Also they were given the motivation questionnaire and self-confidence questionnaire to gather the data concerning their

motivation and the self-confidence in learning English words. In stage two, the intervention was adopted for the participants in the Experimental group while the control group was not given the intervention. After the three week operation, both groups were given the same test and both the motivation and self-confidence questionnaires. Then, the data gathered from two stages were compared.

### Instrument

In order to gather the desired data sets, the following instruments were used in this research study:

- Motivation questionnaire (Appendix D)
- Self-confidence questionnaire (Appendix E)
- Self-created, self-paced goal setting charts (note: the creation of this chart shall be done under the supervision and guidance of their instructor/professor) (Appendix C)
- Pre and post-performance tests borrowed from SIAS English text book reserves

I created four instruments as indicated above. The self-confidence questionnaire, and motivational questionnaire were directly borrowed and adapted from questionnaires from previous research studies. The self-confidence questionnaire was adapted from research article, "Creating a reliable and valid self-efficacy questionnaire and English test to raise learners' L2 achievement via raising their self-efficacy." by Templin, Guile, & Okuma (2001), and the self-motivation questionnaire was directly borrowed from the research article "Relationship between English learning motivation types and self-

identity changes among Chinese students” by Gao, Zhao, Cheng, and Zhou (2007). For the self-confidence questionnaire, there were 11 questions to investigate the student’s self-confidence in learning English, using English to communicate with others, and similar topics. For the motivation questionnaire, there were 30 questions altogether. Some of the questions were designed to investigate the student’s intrinsic motivation, and some of the questions were designed to investigate how external factors such as environment and social context would influence their motivation in learning English. There are seven motivation types in the questionnaire, but this study is focused only on the overall motivation score. While not used in this dissertation, it is noted that the seven scales concern: *Intrinsic interest, Immediate achievement, Learning situation, Going abroad, Social responsibility, Individual development, Information medium.*

For both motivation and self-confidence questionnaires, the measuring scale ranges from 1 to 5. For the motivation questionnaire, 1 means “strongly disagree,” 5 means “strongly agree” and N/A stands for “not applicable.” For the self-confidence questionnaire, 1 begins with “not confident at all” to 5 “very confident” with N/A stands for “not applicable”.

I independently created the student’s self-created goal setting chart. The function of the chart is to help East Asian Chinese students visualize their progress so that they will be able to reinforce their self-confidence and motivation in learning. The rationale for this self-created goal setting chart is based on previous research findings that East Asian students tend to have self-improving motivation and people in general can strengthen their motivation and self-confidence after they discern their progress.

Therefore by letting the students visually see their self-improvement, based on self-determination theory, and self-expectancy theory, it is assumed that their sense of self efficacy and motivation in learning would also be improved. My selection of the vocabulary and tests are mainly based on the following books:

1. Shan Xiaoming (2008). *Cloze, Grammar and Vocabulary for TEM-4*. Guangzhou: Guangdong Shijie Press.
2. Chen Bing (2009). *Cloze, Grammar and Vocabulary for TEM-4*. Qingdao: The Press of Ocean University of China.
3. Yang Limin (2009). *Contemporary College English (4)*. Beijing: Foreign Language Teaching and Research Press.

The reason my on-site facilitator and I chose these books was that the students were taking part in TEM-4 (Test for English Majors grade 4), a key test for second-year English majors across China and this TEM-4 would be taken right after they completed the research. Also, the vocabulary and tests selected from the books mentioned above are considered to be relevant to students' mastery level of English in terms of the degree of difficulty. Therefore, the students could not only help with the research but also really benefit from this research as a preparation for their TEM-4 Test.

For the first stage of the performance test, there were 100 questions with multiple choice answers for each question. These 100 questions were based on 200 English words the students were required to memorize and each question accounted for 1 point

with 100 points as the maximum score.

For the second stage of the performance test, there were 150 questions with multiple choice answers for each question. These 150 questions were based on 250 English words the students were required to memorize and each question accounted for 100/150 point with 100 points as the full score.

### Data Analysis

To compare students' learning outcome, motivation and self-confidence variations in learning between the control group and experimental group before and after the intervention, repeated-measures ANOVA will be conducted.

In this particular research, the dependent variables are scores on:

1. Motivation in learning measures;
2. Self-confidence/Self efficacy measures
3. Performance measures

The independent variable is:

Research groups with self-created progress goal chart versus no such goal chart

In order to analyze the data, I used SPSS tool to analyze the result of this particular research.



Table for Methodology

The following table describes in detail about when and how this research study was conducted as well as the participants information.

**Stage One (Duration: 3 weeks)**

Table 3.1 Table for Methodology

DATE/ITEMS	CLASS/GROUP	INSTRUCTOR	TARGET STUDENTS	INSTRUMENT	INTERVENTION	TESTS	NOTE
February 21 <sup>st</sup>	Class one(Control group)	Teacher A	n=53 students	None	Students were given 200 English words to remember for two weeks (The English words were retrieved from their own English text book)	None	
February 21 <sup>st</sup>	Class two(Experimental group)	Teacher B	n=53 students	None	Students were given 200 English words to remember for two weeks (Depending on how much words their English text book requires them to learn in two weeks)	None	
<b>Two weeks duration</b>							

March 14 <sup>th</sup> & 16 <sup>th</sup>	Class one/Control Group	Teacher A	n=53 students	Motivation questionnaire Self-efficacy questionnaire (The questionnaires was given on 14 <sup>th</sup> of March)	N/A	Yes. Test was given on March 16 <sup>th</sup> (the test was available in the targeted foreign language school)	Through a multiple choice test, the students would be identifying the correct words
March 14 <sup>th</sup> & 16 <sup>th</sup>	Class two/Experimental group	Teacher B	n=53 students	Motivation questionnaire Self-efficacy questionnaire (The questionnaires will be given on 14 <sup>th</sup> of March)	N/A	Yes. Test was given on March 16 <sup>th</sup> (the test was available in the targeted foreign language school)	Through a multiple choice test, the students would be identifying the correct words
<b>Note</b>							
<p>Before the research study began, the researcher had already contacted the professors in the target foreign language college to get the professor's agreement in collaboration (for each participating professor, they will be given 1500 RMB [Chinese currency that equals to about 300 USD]). Upon arriving in the targeted school he introduced his idea of helping students to create their own learning goals and pace and manage their own learning progress toward English words memorization on a progress charts.</p> <p>The teacher recruited his or her students who would voluntarily participate in this research study.</p> <p>After recruiting, the students were randomly classified into two groups, the Experimental group and the control group. The students were read the consent form (Note: both groups got a consent form because they are all tested and they are given the questionnaires)</p>							

## Stage Two (Duration: 3 weeks)

Table 3.2 Table for Methodology

DATE/ITEMS	CLASS/GROUP	INSTRUCTOR	TARGET STUDENTS	INSTRUMENT	INTERVENTION	TESTS	NOTE
March 18 <sup>th</sup>	Class one(Control group)	Teacher A	n=53 students	None	None	None	It is the researchers' intention that the control group gets nothing because the researcher intends to compare the effect of using the self set goal charts to without the charts
March 18 <sup>th</sup>	Class two(Experimental group)	Teacher B	n=53 students	None	The instructor spend about 30-40 minutes in the class to introduce the idea of the self created goal strategy and teach them how to use this strategy	None	
<b>Three days duration</b>							It is the researchers' intention that there were three days duration for the students to get familiar with the self created goal setting strategy
March 21 <sup>st</sup>	Class one/Control Group	Teacher A	n=53 students	None	In the class, students were given 250 English words	None	

<b>March 21<sup>st</sup></b>	Class two/Experimental group	Teacher B	n=53 students	None	<p>In the class, students were given 250 English words</p> <p>The students were instructed to use their self-created goal progress charts to keep track of their word memorization progress</p> <p>The instructor ensured that the students will get feedback on their learning progress or challenges.</p>	None	
<b>Two Weeks Duration</b>							
<b>April 11<sup>th</sup> -13<sup>th</sup></b>	Class one/Control Group	Teacher A	n=53 students	<p>Motivation questionnaire</p> <p>Self-efficacy questionnaire (The questionnaires were given on 11<sup>th</sup> of April)</p>	None	<p>Yes. Test will be given on April 13<sup>th</sup> (the test was available in the targeted foreign language school)</p>	<p>Through a multiple choice test, they would be identifying the correct words</p>
<b>April 11<sup>th</sup> -13<sup>th</sup></b>	Class one/Experimental group	Teacher B	n=53 students	<p>Motivation questionnaire</p> <p>Self-efficacy questionnaire (The questionnaires were given on 11<sup>th</sup> of April)</p>	None	<p>Yes. Test will be given on April 13<sup>th</sup> (the test was available in the targeted foreign language school)</p>	<p>Through a multiple choice test, they would be identifying the correct words</p>
Note							

Teacher A and teacher B were the same person.

After giving the English words, the instructor taught both groups in read-after-me strategy to learn the words but only experimental group was given the instruction as how to create and use the goal progress chart and the feedback concerning their progress.

Then the comparison was made.

The students were required to use the proposed goal setting strategy after agreeing for participation.

Every Friday afternoon for the students' self study time (Question and Answer time) in the class, the teacher in the experimental group gave the feedback on the students' progress or challenges. Students were required to bring their charts to let the teacher know about their learning progress.

After gathering the data, the research would compare the data from control group and experimental group.

Then the researcher will compare the data gathered from stage one to the date gathered from stage two to investigate the possible change of motivation and self-efficacy.

Based on the revision of research questions, effort were made to align those with the measurement strategies used. (for example: SPSS)

*(NOTE: Appendix F)*

## Conclusion

This particular chapter detailed the research procedure as to how the researcher conducted his research study, the specific research strategies he used and the research setting as well as the information collected from research participants. The following chapter (chapter four) presents the specific table to illustrate the result of the research study and data interpretation is conducted for each table to illustrate what the data tells about the research outcome.

## CHAPTER 4: RESEARCH RESULTS

### Introduction

The purpose of this study was to investigate the effect of students' self-created goal setting strategies on East Asian Chinese students' motivation, self-confidence and learning performance. In this particular study, quantitative data were entered into the Statistical Package for Social Sciences (SPSS) and repeated measures ANOVA was used to test for statistical significance. The independent variable was self-created progress goal chart versus no such goal chart, and the dependent variables were: scores on motivation, self-confidence and performance measures. The results from SPSS were generated to identify the effect of self-creating goal setting strategy on the students' motivation, self-confidence and learning performance. These research results are reported in five sections. In the first section, the demographics are presented along with the reliability of the research instruments. The following section presents descriptive statistics associated with the results from research data. The remaining sections summarize the results found to answer the three research questions.

## Participants Demographics and Instrument Reliability

Initially, 106 students agreed to participate in this particular research study, but only 72 students eventually went through the research procedure and finished all the tests. The remaining students either withdrew from the research in the research process or did not participate in both research stages (some participated in only one stage, so their records were taken out from the research data sets). Thereby the research sample was eventually narrowed down to 72 participants. Usable response rate is 67.9%. The research was composed of two sessions: the first session went from Feb 21, 2011 to March 14, 2011 with one week break range (from March 14, 2011 to March 20, 2011) and the second session went from March 21, 2011 to April 11, 2011.

### Gender

The majority of valid participants in the current research sample were female. The females presented 87.5% (n=63) of the participants; males were 12.5% (n= 9) of the data. Figure.1 shows the gender distribution in a pie chart.

Table 4.1 Gender

		Participants gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	63	87.5	87.5	87.5
	Male	9	12.5	12.5	100.0
Total		72	100.0	100.0	



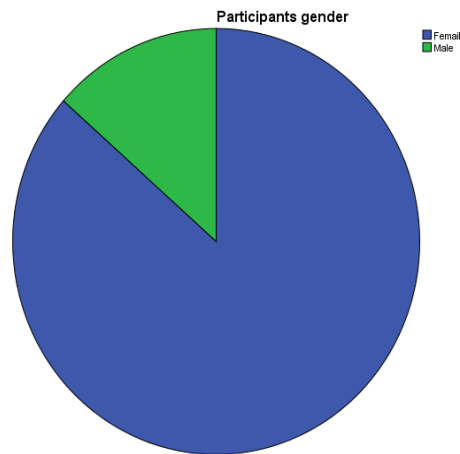


Figure 4-1 Gender

### Instrument Reliability

Table 4.2 Instrument Reliability

	Cronbach's alpha ( $\alpha$ )		Cronbach's Alpha Based on Standardized Items	N of Items
	Pre-Test	Post-Test		
			.699	30
Motivation	.694	.694		
Self-confidence	.729	.729	.729	11

As suggested by George and Mallery (2003), Cronbach's  $\alpha \geq .7$  is considered acceptable reliability. The results from the motivational questionnaire shown in the reliability table indicate that the Cronbach's Alpha is .694, which is roughly about .7 indicating that the re-adjusted research measurement items are at an acceptable reliability. Likewise, the results from the self-confidence questionnaire shown in the reliability table indicated that the Cronbrach's Alpha is .729 and this is considered to be acceptable reliability.

## Descriptive Statistics

In the following paragraph, the means and standard deviations by group for each variable are discussed. Altogether, three tables on means and standard deviations are presented with one for motivation, one for self-confidence, and one for performance.

The means and standard deviations are presented for the detection of the change in the pre- and post-intervention for the experimental group and the pre- and post-intervention difference between control and experimental group. Review of the means is revealed in the table below with the pre-motivation means being roughly equal in value (control group pre-motivation=83.2286, experimental group pre-motivation=84.5405) and the post-motivation mean for the experimental group only two points higher than the comparison group (control group post motivation=82.9429, experimental group post-motivation=84.9730). Accordingly, the data does not provide solid evidence for the motivation improvement after the intervention (see table 4.3).

Table 4.3 Descriptive Statistics for Pre and Post-Motivation

	Research groups	Mean	Std. Deviation	N
Pre-motivation	Control group	83.2286	11.38649	35
Sum	Experimental group	84.5405	8.28182	37
	Total	83.9028	9.86409	72
Post-motivation	Control group	82.9429	10.17767	35
Sum	Experimental group	84.9730	8.72890	37
	Total	83.9861	9.44889	72

The plotted means in the chart demonstrated visually what is seen numerically above.

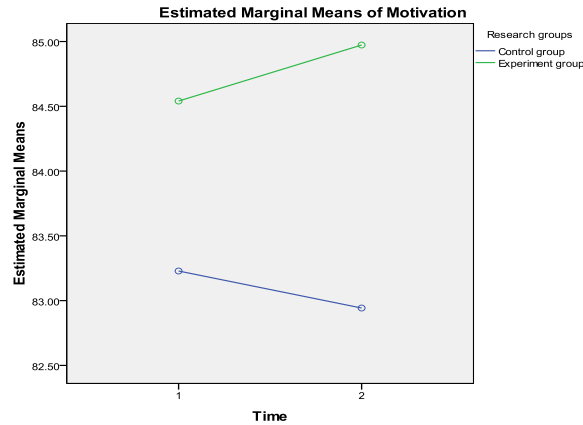


Figure 4-2 Motivation

As for the self-confidence variable, the table indicated that pre-self-confidence means were roughly equal in value (pre-confidence sum for control group=36; experimental group=36.4865) and the post-self-confidence mean for the experimental group is about the same as the comparison group (post-confidence Sum for control group =37.0571; experimental group=36.5405). The descriptive statistics for self-confidence indicate no significant difference between the research groups after the adoption of goal setting strategy (See table 4.4)

Table 4.4 Descriptive Statistics for Pre and Post-confidence

Pre-confidence Sum	Control group	36.0000	5.09902	35
	Experimental group	36.4865	6.05815	37
	Total	36.2500	5.57851	72
Post- confidence Sum	Control group	37.0571	5.54629	35
	Experimental group	36.5405	5.08590	37
	Total	36.7917	5.28334	72

The plotted means in the chart below demonstrate visually what is seen numerically above. The horizontal axle stands for the time difference (Stage one and Stage two); the vertical axle stands for estimated marginal mean starting from 36.00 to 37.20.

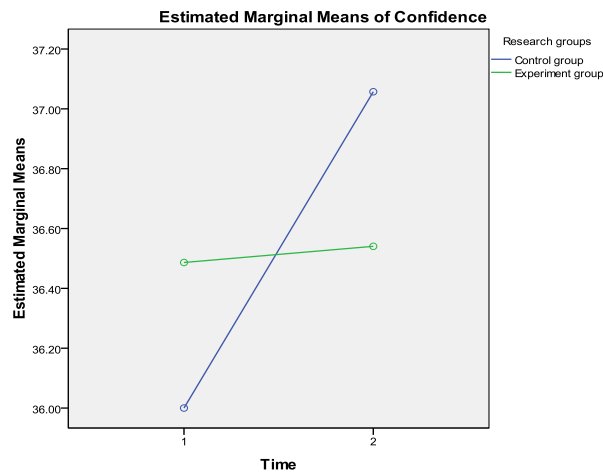


Figure 4-3 Self-Confidence

For performance, the means and standard deviation are presented in table 4.5. In the table it shows that mean for experimental group is one point higher than the control group in the pre-test (pre-test sum for control group=56.2571; pre-test sum for experimental group=57.9459) and the post-test mean for the experimental group obviously higher (6 points) than the comparison group (post-test control group =61.6286; post-test sum for experimental group=67.5946). As a result, there is an apparent increase for the students learning performance outcome therefore this descriptive result provides evidence that there is a statistical significance between the experimental group and control group after the goal setting strategy was adopted ) (See table 4.5) .

Table 4.5 Descriptive Statistics for Pre and Post-Test

Pretest	Control group	56.2571	9.88565	35
	Experimental group	57.9459	12.15855	37
	Total	57.1250	11.06694	72
Posttest	Control group	61.6286	10.98685	35
	Experimental group	67.5946	9.65361	37
	Total	64.6944	10.68056	72

The plotted means in the chart below demonstrated visually what is seen above numerically. The horizontal axle stands for the time difference (Stage one and Stage two); the vertical axle stands for estimated marginal mean ranging from 57.50 to 67.50.

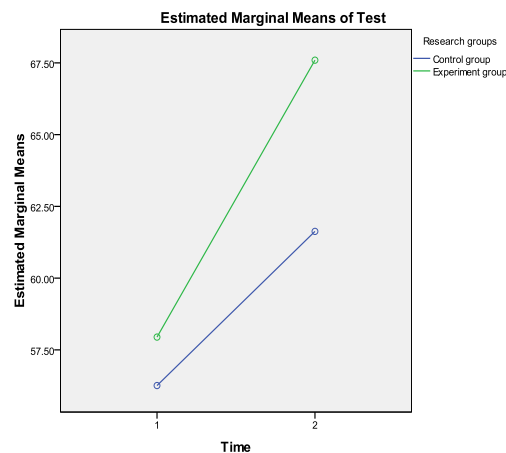


Figure 4-4 Performance

To examine differences in motivation, self-confidence, and performance across groups over time and their correlational influences, multivariate ANOVA repeated measures were conducted using time (seven week interval) and tests (motivation questionnaire, self-confidence questionnaire, and performance test) as repeated factors. To be more specific, doubly multivariate repeated measuring procedures were adopted to analyze within-subject factors: time (2 levels) and test, as well as between subject

factors: research groups (control group and experimental group).

According to the needs and nature of this particular research study, repeated measures ANOVA was used to investigate the statistical significant interaction effect between goal setting strategy conditions effect on students' motivation and the variation of motivation in the pre and post research session (goal setting vs. no goal setting)

Based on the results (see table 4.6), the statistics results indicate that for the research groups, there is no significant difference between the control and experimental groups on the measures combined and the hypothesis has not been supported. According to the table, the significance level Wilk's lambda (3, 68) = .361 ( $p > .05$ ). So there's no statistical significance in the pre and post-tests combined (self-motivation, self-confidence, and performance tests) between experimental group and control group.

For the within subject effects in the table 4.6, the pre and post measures are statistically significant for the time effect. The significance level Wilk's lambda (3, 68) = .00 ( $p < .05$ ) there is a statistical significance between the pre and post session with experimental group and control group.

In the time and research group interaction, the result indicates that there is significant difference between control group and experimental group across the times. The significance level Wilk's lambda (3, 68) = .077 (two tailed  $p > .05$ ) indicates there is statistical significance between the pre and post session in both experimental group and control group.

Table 4.6 Multivariate Tests<sup>c</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. parameter	Observed Power	
Between Subjects	ResGroups	Wilks'	.95	1.086 <sup>a</sup>	3.000	68.00	.36	.046	3.257	.281
		Lambda	4			0	1			
		a								
Within Subjects	Time	Wilks'	.45	27.47	3.000	68.00	.00	.548	82.415	1.000
		Lambda	2	2 <sup>a</sup>		0	0			
		a								
Subjects	Time * ResGroups	Wilks'	.90	2.377 <sup>a</sup>	3.000	68.00	.07	.095	7.132	.571
		Lambda	5			0	7			
		a								

a. Exact statistic

b. Computed using alpha = .05

c. Design: Intercept + ResGroups

Within Subjects Design: Time

In order to present the research findings in a clear fashion, three research questions will be reiterated and research hypothesis will be restated in an orderly fashion. Question one and affiliated hypothesis will be presented and research data will be provided to answer the question.

## Research Question 1

Do East Asian Chinese students, who have learned to use visualized self-goal-creating technique, displays evidence of greater self-confidence than before using the strategy and do they also display evidence of greater self-confidence than the East Asian Chinese students who do not learn how to use the technique?

*Hypothesis 1.1: There is a statistically significant difference between the control group and experimental group in motivation in the pre- and post-session of the research based on the same testing instrument*

*Hypothesis 1.2: There is a statistically significant difference for the experimental group in motivation between the pre- and post-session of the research based on the same testing instrument*

This research was designed to investigate if the student's self-goal setting strategy would influence their motivation in learning. As a result, the univariate analysis of variance was used to determine if students motivation toward English vocabulary memorization differed by time and group.

Table 4.7 Mauchly's Test of Sphericity for Motivation

Within Effect	Subjects Measure	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Time	Motivation	1.000	.000	0	.	1.000	1.000	1.000
	Confidence	1.000	.000	0	.	1.000	1.000	1.000
	Test	1.000	.000	0	.	1.000	1.000	1.000



Mauchly's Test of Sphericity indicates that there was no violation (see table: 4.7).

To determine whether students in the experimental group (goal group) demonstrated more improvement in motivation as compared to the control group (non-goal group), the focus of this analysis is placed on the interaction between research groups and time. A review of this result reveals that a non-statistically significant interaction between groups and time exists,  $F(1,70) = .093$ ,  $p = .761 > .05$ . The hypothesis is yet to be supported (See table 4.8).

Table 4.8 Univariate Tests for Motivation

Source	Measure		Type III Sum of Squares	DF	Mean Square	F	Sig.	Partial Eta Squared	Noncent. parameter	Observed Power
Time	Motivation	Sphericity Assumed	.194	1	.194	.004	.950	.000	.004	.050
<b>Time *Res Groups</b>	Motivation	Sphericity Assumed	4.638	1	4.638	.093	.761	.001	.093	.060
Error (time)	Motivation	Sphericity Assumed	3476.112	70	49.659					

Paired Sample Test indicates that the student's goal setting strategies did not help students boost their motivation for the second stage of the research experiment. T value =-.385. DF=36. The significance level is .702 (2-tailed) ( $p>.05$ ) so there is no statistical significance between the pre and post motivation across times (See table 4.9). Therefore the hypothesis is not supported by the research result.

Table 4.9 Paired Samples Test for Motivation

		<b>Paired Samples Test<sup>a</sup></b>					t	df	Sig. (2-tailed)
		Paired Differences							
Pair		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1	PremotSum	-	-						
	PostmotSum	.43243	6.82536	1.12208	-2.70812	1.84326	-.385	36	.702

a. Research groups = Experimental group

## Research Question 2

Do the East Asian Chinese students, who have learned using visualized the self-goal creating technique, display evidence of greater self-confidence than before using the strategy and also than the East Asian Chinese students who do not learn how to use the technique?

*Hypothesis 2.1: There is a statistically significant difference between the control group and experimental group in self confidence in the pre and post session of the research based on the same testing instrument*

*Hypothesis 2.2: There is a statistically significant difference for the experimental group in self-confidence between the pre and post session of the research based on the same testing instrument*

The same approach to the motivation investigation was adopted: a 2 x 2 (group x pre/post questionnaire) ANOVA with repeated measures was conducted to determine if self-confidence toward English vocabulary memorization differed by time and group.

Mauchly's Test of Sphericity indicates that there was no violation (see table: 4.10). In the time and research group interaction, the result indicates that there is no significant statistical difference between control group and experimental group across the times. The F value (1, 70) = .588 and the significance level is .446 ( $p > .05$ ) so there is no statistical significance between the pre and post confidence (See table 4.11)

Table 4.10 Mauchly's Test of Sphericity<sup>b</sup> for Confidence

Within Subjects Effect	Measure	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
time	Motivation	1.000	.000	0	.	1.000	1.000	1.000
	Confidence	1.000	.000	0	.	1.000	1.000	1.000
	Test	1.000	.000	0	.	1.000	1.000	1.000

Table 4.11 Univariate Tests for Confidence

Source	Measure		Type III Sum of Squares	DF	Mean Square	F	Sig.	Partial Eta Squared	Noncent. parameter	Observed Power
Time	Confidence	Sphericity Assumed	11.104	1	11.104	.722	.398	.010	.722	.134
time * ResGroups	Confidence	Sphericity Assumed	9.049	1	9.049	.588	.446	.008	.588	.118
Error(time)	Confidence	Sphericity Assumed	1076.889	70	15.384					

a. Computed using alpha = .05

Paired Samples Test for confidence indicates that T value =-.055.and DF=36. The significance level is .956 (2-tailed) ( $p>.05$ ), so there is no significant statistical significance between the pre and post confidence across time (See table 4.12). Accordingly, the hypothesis in the research question has not been supported though there could be many other variables impacting this research result, such as motivation. I will explain and make implications in chapter five concerning this particular research result.

Table 4.12 Paired Samples Test for Confidence

		Paired Samples Test <sup>a</sup>						t	df	Sig. (2-tailed)
		Paired Differences				Lower	Upper			
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference					
				Mean						
Pair 1	PreconfidSum - PostconfidSum	- .05405	5.94860	.97794	-2.03742	1.92931	-0.055	36	.956	

a. Research groups = Experimental group

### Research Question 3

Do the East Asian Chinese students, who have learned using visualized self-goal creating technique display evidence of greater performance than before using the strategy and also than the East Asian Chinese students who do not learn how to use the technique?

*Hypothesis 3.1: There is a statistically significant difference between the control group and experimental group in performance in the pre and post session of the research based on the testing instruments*

*Hypothesis 3.2: There is a statistically significant difference for the experimental group in performance between the pre and post session of the research based on the testing instruments.*

Based on the literature review and initial hypothesis, if motivation and self-confidence have variations between the pre and post session, the learning performance in association with them should also have some changes. Mauchly's Test of Sphericity indicates that there was no violation (see table: 4.13).

In the time and research group interaction, the result indicates that there is a significant difference between control group and experimental group across the times. pre- and post-test are statistically significantly different for experiment and control group  $F$  value (1,70) =6.793;  $P=.011 < .05$  (see table 4.14)

Table 4.13 Mauchly's Test of Sphericity<sup>b</sup> for Performance

Within Subjects Effect	Measure	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
time	Motivation	1.000	.000	0	.	1.000	1.000	1.000
	Confidence	1.000	.000	0	.	1.000	1.000	1.000
	Test	1.000	.000	0	.	1.000	1.000	1.000

Table 4.14 Univariate Tests for Performance

Source	Measure	time	Type III Sum of Squares	DF	Mean Square	F	Sig.	Partial Eta Squared	Noncent. parameter	Observed Power
Time	Test	Sphericity Assumed	2028.858	1	2028.858	83.773	.000	.545	83.773	1.000
time * ResGroups	Test	Sphericity Assumed	164.524	1	164.524	6.793	.011	.088	6.793	.729
Error(time)	Test	Sphericity Assumed	1695.302	70	24.219					

a. Computed using alpha = .05

The result from Paired Samples Test indicates that for the time effect, the pre- and post-tests measures are statistically significant:  $T=-8.369$ ;  $DF=36$ . The significance level is  $<.001$  (2-tailed  $p<.05$ ). (see table 4.15) Accordingly, the hypothesis in the research questions has been supported.

Table 4.15 Paired Samples Test for Performance

		Paired Samples Test <sup>a</sup>						t	df	Sig. (2-tailed)
		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
					Lower	Upper				
Pair 1	PreTest - PostTest	-9.64865	7.01275	1.15289	-11.98682	-7.31048	-8.369	36	.000	

a. Research groups = Experimental group

### Summary

This current research examined students' visualized self-goal setting strategy on their motivation and self-confidence in learning. SPSS was utilized to analyze this research and the targeted variables (Independent variables: self-created progress goal chart versus no such goal chart; dependent variables: scores on motivation, self-confidence and performance measures). These variables were measured by three research instruments: motivational questionnaire, self-confidence questionnaire, and performance tests. Results from this study indicate that participants in the experimental group (goal-setting group) had more performance improvement than those in the control group (non-goal group) in the second research session, so there was a statistically



significance increase for students' learning performance, and with all the conditions or learning contexts being equal, the differences can be attributed to the goal setting intervention.

First, the demographics results showed the characteristics of the participants. The usable response rate is 67.9% (72 out of 106) and the majority of the participants were females (87.5%).

Secondly, research results indicate that there was no statistical significant difference in motivation improvement between groups. The research results were contrary to what was hypothesized though minor motivational improvement was still achieved. Motivation for the experimental group was slightly improved after the intervention over the seven-week research study. This indicates that though there is no statistical significant difference was discovered, the slight improvement gives a positive signal that by improving this particular goal setting strategy and providing more frequent feedback, the students motivation might be greatly enhanced and improved.

Thirdly, I noticed that there was no significant difference in self-confidence improvement between groups and this was also contrary to what was hypothesized. Interestingly though, self-confidence for the experimental group was only slightly improved while the control group seemed to have comparatively more self-confidence improvement after the intervention over the seven week research study. The result of the learning performance indicated that the goal setting strategy did facilitate the students improvement in their learning and the means and standard deviation for the test outcome provide statistical evidence to support the initial hypothesis.

## CHAPTER 5: CONCLUSION AND DISCUSSION

### Introduction

The purpose of this current research is to investigate the effect of students' visualized self-goal setting strategy on their motivation and self-confidence in learning. This research was conducted at an American founded private university in a central province in China (SIAS International University). This research is grounded on East Asian Chinese students' self-improving motivation theory that East Asian students, due to their cultural influence, are more inclined to work on correcting their shortcomings to make self-improvement as compared to their North American counterparts who work on their strength to achieve self-enhancement. As have Heine and other researchers' stated in their research studies, the East Asian students' motivation to make self-improvement is to be able to fit in their social context, and to be accepted by their friends or relevant others, therefore they are more aware of their shortcomings and can work hard to correct them.

This chapter provided the overall summaries, conclusions and suggestions for future research that may replicate and expand on this study and for the professionals who will refer their professional practice to this particular research or research similar to this study. First, a summary section reviews the participants for this study, the data collection and results. Then, a conclusion section presents the results of the study based on the research questions and hypothesis. The two sections after the

conclusions discuss the significance, as well as the limitations in the study. Following the limitation sections are recommendation sections that provide research and practical directions for future research study and professional practice.

### Summary

This research study starts from the cultural perspective to investigate the effectiveness of self-goal setting strategy on the East Asian Chinese students' motivation and self-confidence in learning. Though initial participants included 106 first year college students (53 in control group and 53 in experimental group) majoring in English in a university in a central province in China, 72 of them eventually finished the whole research process and turned in their questionnaires and test performance results. The findings of this research study, which was composed of two stages confirmed previous goal setting research studies that goal setting helps students commit themselves to their learning goals and improve their learning outcomes.

Even though the initial hypothesis that the East Asian students' self created and visualized goal setting would cause statistical significant influence on their motivation, self-confidence, and learning performance outcome were not entirely proved, the results from the previous research studies on the positive effect of goal setting of learning outcomes were confirmed. Also, the multivariate repeated measures result on the correlations of the three dependent variables indicate that there is significant statistical difference between the pre and post session of the research for motivation and performance test: The significance level Wilk's lambda (3, 68) = .077 (2-tailed  $p > .05$ )

there is statistical significance between the pre and post session in both Experimental group and control group.

Some of the findings in this research also proved the previous research study results that the root of East Asian students' self-improving motivation is their self-criticism. The experimental group's self-confidence status almost remained status quo while the control group's self-confidence increased slightly more than the Experimental group. Interestingly, though, even with the static self-confidence, the Experimental group showed a slight increase in motivation and an obvious increase in performance scores. This evidently confirmed the previous research studies on East Asian's cultural characteristic in motivation to learn. As stated in chapter two, the reiteration of Heine et al.'s (2001) suggestion that "individuals in East Asian cultural context are socialized to attend selectively to negative attributes and aspects of themselves that are seen as improvable (i.e., self-criticism)" (p. 601) and Hoshino-Browne and Spencer (2000) and Kitayama et al.(1997) research finding that the "self-improvement motivation, a desire to seek out potential weaknesses and work on correcting them, is a strong motivation in East Asian context" (Cited in Heine, 2007, p.723) are among the examples of how East Asians may be more motivated to learn and to produce better learning outcomes though they may not have the equivalent confidence.

Likewise, this particular research study answered the call for the solution to the problem that the instructional designers "lack the strategies that would help to analyze this area and to devise strategies that respond to specific problems" (Visser & Keller, 1990, p.467). Likewise, the study has provided one of the motivational strategies for

instructional designers working in culturally specific or diversified environment because “there is systemic issue and learner’s motivation should be considered throughout the design process (ADDIE)-especially during the first and the last phases” (Wetterling, J. 2006, p.8).

### Conclusions

Based upon the result of this study, the conclusions are drawn to in response to the hypothesis:

*Hypothesis 1.1: There is a statistically significant difference between the control group and Experimental group in motivation in the pre and post session of the research based on the same testing instrument*

Hypothesis 1.1 assumed that the students in the experimental group would display higher score in motivation due to their utilization of goal setting strategy as compared to the control group who did not use such strategy. The results of this research showed that in the first session of the research, when no intervention was adopted, the mean score for the control group was almost the same as the experimental group. (control group pre-motivation=83.2286, experimental group pre-motivation=84.5405). In the second session of the research, after the intervention was adopted, the experimental group showed slightly more of an increase in their mean score for motivation (control group post motivation=82.9429, experimental group post-motivation=84.9730). Likewise, the result from a 2 x 2 (group x pre/post questionnaire) ANOVA with repeated measures indicates that there is no statistically significant

interaction between the control and experimental group and time.  $F(1, 70) = .093$ ,  $p = .761 > .05$ .

*Hypothesis 1.2: There is a statistically significant difference for the experimental group in motivation between the pre and post session of the research based on the same testing instrument*

As for Hypothesis 1.2, the comparison of the first stage mean score and second stage mean score shows that there is almost no increase in mean score in motivation. (experimental group pre-motivation=84.5405; experimental group post-motivation=84.9730). Paired Sample Test results also present no statistical significance between the motivation result in the first and second session of the research for the experimental group.  $T = -.385$ ;  $DF=36$ , significance level is  $.702$  (2-tailed  $p > .05$ ).

Therefore, the East Asian Chinese students who participated in the visualized self-goal setting intervention did not display a higher score for the increase of their motivation than the students who did not participate in the same intervention in the pre and post sessions of the research. Also, the experimental group did not reveal a higher score for the increase of their motivation in the post session of the research. The hypothesis is not supported.

*Hypothesis 2.1: There is a statistically significant difference between the control group and experimental group in self confidence in the pre and post session of the research based on the same testing instrument*

Hypothesis 2.1 proposed that that after the utilization of the goal setting strategy, the experimental group would reveal higher score in self-confidence as opposed to the

control group, which did not use this strategy. However, the students in the experimental group did not produce a significantly higher mean score than the control group in the pre and post session of this research (pre-confidence sum for control group=36, pre-confidence sum for experimental group=36.4865; post-confidence sum for control group =37.0571, post-confidence sum for experimental group=36.5405) Likewise, the result indicates that there is no significant difference between control group and experimental group across the times. The F value (1, 70) =.588 and the significance level is .446 ( $p>.05$ ) there no statistical significance between the pre and post confidence.

*Hypothesis 2.2: There is a statistically significant difference for the experimental group in self-confidence between the pre and post session of the research based on the same testing instrument*

For Hypothesis 2.2, the comparison of the first stage mean score and second stage mean score shows that there is almost no increase in mean score in motivation. (experimental group pre-confidence=36.4865; experimental group post-confidence=36.5405). Paired Sample Test result also presents no statistical significance between the self-confidence result in the first and second session of the research for the Experimental group across time. T value =-.055. DF=36. The significance level is .956 (2-tailed) ( $p>.05$ )

As a result, this research outcome did not support hypothesis 2.1 and 2.2 and the East Asian Chinese students who participated in the visualized self-goal setting intervention did not display a higher score for the increase of their self-confidence in the pre and post session of the research and also than the students who did not participate

in the same intervention in the pre and post sessions of the research.

*Hypothesis 3.1: There is a statistically significant difference between the control group and experimental group in performance in the pre and post session of the research based on the testing instruments*

Hypothesis 3.1 initially predicted that the students in experimental group would display higher score in performance test due to their utilization of goal setting strategy as compared to the control group who did not use such strategy. The results of this research showed that in the first session of the research, when no intervention was adopted, the mean score for the control group is the almost the same as the experimental group. (pre-test sum for control group=56.2571; experimental group=57.9459); in the second session of the research, after the intervention was adopted, the experimental group showed more increase in the mean score for the motivation (post-test control group =61.6286; experimental group=67.5946). This statistical significance increase is also reflected in the result in 2 x 2 (group x pre/post-tests) ANOVA with repeated measures: F value (1,70) =6.793; P=.011<.05.

*Hypothesis 3.2: There is a statistically significant difference for the experimental group in performance between the pre and post session of the research based on the testing instruments.*

For Hypothesis 3.2, the comparison of the first stage mean score and second stage mean score shows that there is significant increase in mean score in test (pre-test sum for experimental group=57.9459; post-test sum for experimental group=67.5946). Paired Sample Test result also presents statistical significance for the experimental



group in the first session of research and second session of the research for the experimental group across time:  $T = -8.369$ ;  $DF = 36$ . The significance level is  $<.001$  (2-tailed  $p <. 05$ ).

As a result, this research outcome rejected hypotheses 3.1 and 3.2 and the East Asian Chinese students who participated in the visualized self-goal setting intervention displayed a higher score for the increase of their learn performance in the pre and post session of the research and also than the students who did not participate in the same intervention in the pre and post sessions of the research. The hypothesis is proved.

Finally, the results from the multivariate test indicated that there was a correlation for the interaction among motivation, self-confidence and learning performance after the visualized self-goal setting intervention was implemented for those who participated in the intervention in the pre and post sessions of the research. The significance level Wilk's lambda (3, 68) = .077 (two tailed  $p >.05$ ) there is statistical significance between the pre and post session in both experimental group and control group.

### Limitations

Due to some practical reasons, there were some limitations that hindered the research process from being conducted as it had been planned in the first stage and some of the possible reasons may also impact the result of the research study.

First, there were limited numbers of participants in this research study. Initially, there were 106 students that agreed to participate in this research study but eventually only 72 students went through the overall process and finished all the required tests. As

is well known in the research field, the larger the research sample, the better the statistical results that are generated. With the limited number of research participants, the result could not perfectly reflect the initial research postulation.

Secondly, the lack of control for the control group (non-goal group) not to copy the experimental group's goal setting strategy or to set their own learning goals for improvement was another drawback for this research. The students in the result of this study may also be impacted by the limitation for this lack of control. The students in the control group may consult the experimental group for information about the goal setting strategy from this research design and copy the goal strategy for their learning out of curiosity.

Thirdly, the motivation questionnaire I adopted for this particular research was originally developed for use in the Western cultural settings. Therefore it may not be the ideal testing instrument for the East Asian Chinese students to generate expected results.

Last but not least, due to the reason that the research was not directly relevant to their formal study and it was indicated from the very beginning that this research was voluntary and not direct benefits could be brought to them, the students might not have faithfully followed the research procedure and commit themselves to this research. As a consequence, the outcome of this research may not faithfully reflect the desired result.

## Recommendations

The following recommendations that are considered to be helpful are given for future research efforts in the area of student's goal setting strategy in East Asian cultural environment:

1. Increase the number of participants in a similar research study.
2. Conduct or replicate this study by separating the control group and experimental group in different schools so that the chance of the control group copying the experimental group is avoided.
3. Develop a motivation questionnaire based on East Asian people's cultural values and norms so that it can help generate more accurate results.
4. Adopt the combination of both qualitative research and quantitative research study to keep the accuracy of this research result.
5. Refine the intervention strategy (the visualization of students' self-created goal setting strategy) as this strategy had no precedent. Therefore more literature review should be conducted and more refinements are needed to make it more efficient.
6. In the future statistical procedures, it is strongly recommended that self-confidence be used as a moderating variable to investigate the correlations of self-confidence, motivation, and test performance. As it was assumed that with the increase of self-confidence, the motivation and performance result should also be enhanced as research results have shown that these three variables are

strongly correlated therefore self-confidence as moderating variable is recommended for similar or replicated future research study.

**APPENDIX A**  
**UCF INSTITUTION REVIEW BOARD PERMISSION LETTER**



University of Central Florida Institutional Review Board  
 Office of Research & Commercialization  
 12201 Research Parkway, Suite 501  
 Orlando, Florida 32826-3246  
 Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Approval of Human Research

From: UCF Institutional Review Board #1  
 FWA00000351, IRB00001138

To: Yu Ao

Date: January 19, 2011

Dear Researcher:

On January 19, 2011, the IRB approved the following human participant research until 1/18/2012 inclusive:

Type of Review: Submission Correction for UCF Initial Review Submission Form  
 Expedited Review Category #7  
 Project Title: The effect of visualized student's self created learning goals on  
 East Asian Chinese student's motivation and self confidence in  
 learning  
 Investigator: Yu Ao  
 IRB Number: SBE-10-07356  
 Funding Agency: None  
 Research ID: N/A

The Continuing Review Application must be submitted 30days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form cannot be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 1/18/2012, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 01/19/2011 04:44:21 PM EST

**APPENDIX B**  
**INFORMED CONSENT LETTER**



## **The effect of visualized student's self-created learning goals on East Asian Chinese student's motivation and self- confidence in learning**

### **Informed Consent**

Principal Investigator(s): Yu Ao, Doctoral Student  
Facilitator(s): JunMing Xu  
Faculty Supervisor: Stephen Sivo, PhD  
Investigational Site(s): SIAS International University  
Zhengzhou, Henan, China

**Introduction:** Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being invited to take part in a research study which will include about [103] people [who are all Han Chinese students at Zhengzhou City, Henan, China]. You have been asked to take part in this research study because you are SIAS students majoring in English translation. You must be 18 years of age or older to be included in the research study.

The person doing this research is Yu Ao (James Ao) of College of Education. Because the researcher is a doctoral student and he is being guided by Dr. Stephen Sivo, a UCF faculty supervisor in College of Education.

#### **What you should know about a research study:**

- The researcher will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.



- Feel free to ask all the questions you want before you decide.

### **Purpose of the research study:**

The purpose of this research study is to find out the effect of visualized students' self-created goals on their motivation and self-confidence in learning. And theoretical foundation to conduct this particular goal setting research study is based on the East Asian cultural influence on their learning and education, and other motivational theories such as expectancy theory, self-determination theory and etc. In this research study, Chinese students are chosen as the representative sample of the East Asian students. The challenge of this study is that it is dependent on students' faithful dedication to their given strategy (the visualized self-created learning goal charts) to help facilitate maintaining their motivation and strengthen their self-confidence. In order to solve this particular problem, an instructor of theirs is invited to participate in this study in monitor the whole process.

### **What you will be asked to do in the study:**

You will be randomly assigned to one of the two groups. And this research is composed of two stages:

During the first stage of this research no intervention will be implemented. The students in both control group and Experimental group will equally be given the same learning task as to remember 200 words in three weeks and will be asked to completed the same multiple choice quiz and questionnaires to measure their learning outcomes and motivation disparities.

During the second stage of the research, both groups will be given another 250 words to remember and these words will also be retrieved from your text book. If you are a student in the experimental group, you will create your own learning goals for remembering the given words and you will pace your own learning goal. This will take place during one class period. The goals you create will be visualized on your own goal progress chart. These goals will be presented as an empty dot on the chart before you actually achieve that goal. However, after you achieve your own learning goal, you will fill in the empty dot yourself to visualize your progress and line up the filled dots to visualize the achievement you have made as a climbing line. After the experiment, you will be given a multiple choice quiz to test on the result of your learning with the intervention.

If you are a student in the control group, no intervention will be given. However, both groups will be given questionnaires to measure both motivation and self-confidence before and after the intervention takes place.

You do not have to answer every question or complete every task. You will not lose any benefits if you skip questions or tasks. If you feel this research will not bring you any benefits or may cause negative influence on your study, you have right to decline this research request. However, if you want to earn extra credit, you can submit an essay of about 500-800 words describing your English learning experience and sharing your technique as well as the challenge of your learning. Please inform the researcher of your decision.

**Location:** SIAS International University, Zhengzhou, China.

**Time required:** We expect that you will be in this research study for altogether two months at the most. The experimental group will create their own learning goals outside class time. The multiple choices quizzes and questionnaires should take approximately 45 minutes (first stage) to 50 minutes (second stage).

**Risks:**

There are no reasonably foreseeable risks or discomforts involved in taking part in this study.

**Benefits:**

There are no direct benefits to all of you but immediate possible benefits such as the motivational and goal setting strategy you will learn will help the experimental group who will learn the self-goal setting strategy improve your learning performance in your chosen field or at least provide you one more optional goal setting strategies in facilitating your learning. If the strategy in this research is proven to be effective, the participants in the control group may also be encouraged to use such strategy therefore benefiting on it.

**Compensation or payment:**

There is no direct compensation such as monetary reward for taking part in this study but an extra credit will be offered to you in your final term evaluation for your participation. If you choose not to participate, you may notify your instructor and ask for an alternative assignment of equal effort for equal credit. There will be no penalty.

**Confidentiality:** We will limit your personal data collected in this study to people who have a need to review this information. We cannot promise complete secrecy.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints, or think the research has hurt you, talk to or email to: [cornell@mail.ucf.edu](mailto:cornell@mail.ucf.edu) or sivo@mail.ucf.edu

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901. You may also talk to them for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You want to get information or provide input about this research.

**DO NOT SIGN THIS FORM AFTER THE IRB EXPIRATION DATE BELOW**

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Name of participant

---

Signature of participant

---

Date

---

Signature of person obtaining consent

---

Date

---

Printed name of person obtaining consent

**APPENDIX C**  
**GOAL ACHIEVEMENT CHARTS ILLUSTRATION**

This Appendix C contains chart illustration as how students can visually pace and manage their goal attainment and how the instructor can trace his or her students' progress in their goal attainment. In this chart, the empty dots represent the goals set by the students themselves under the supervision of their own instructor or professor. The size of the empty dots represents the amount of the content, large or small, of the goal the students are planning to achieve. After the students achieved their own goals, they will fill in the empty dot to make it a black dot in order to visually see that that they have achieved this goal and their instructor will provide feedback on their goal achievement. It is proposed that by setting the goals, pacing their own goal attainment progress and visually realizing their goal attainment on their own created goal attainment progress chart, the students' motivation in achieving their learning goals will be enhanced, their self confidence in their self-set goal achieving will be strengthened and their learning performance will be improved. (Please refer to the lit review section)

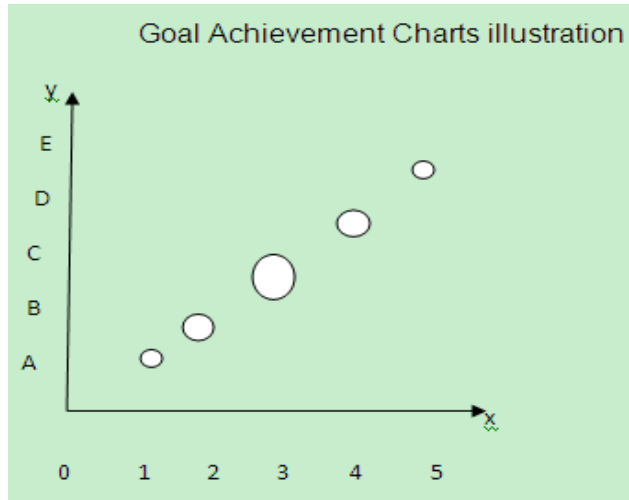


Figure A-1 Goal Progress

This chart represents the goals set by the students themselves and they are expecting to achieve those goals. The different size of the dots means the different amount of work the students set for themselves

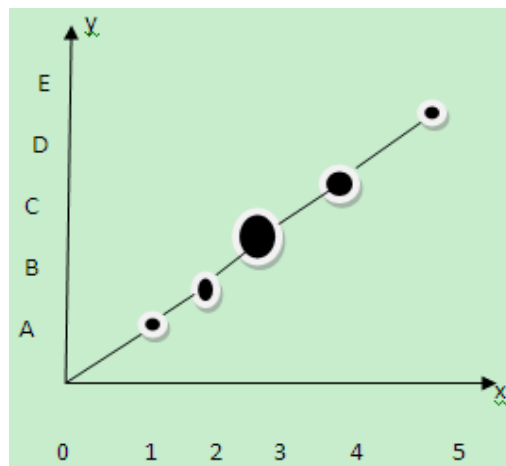


Figure A-2 Goal Progress

This chart represents the goals set by the students being fulfilled after their endeavor

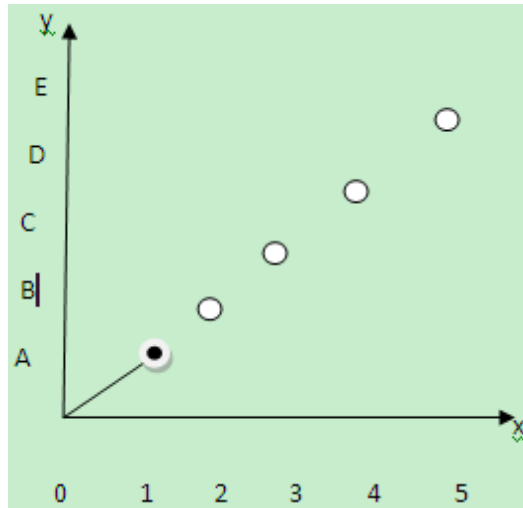


Figure A-3 Goal Progress

This chart represents the first goal being fulfilled and four more goals need to be attained (Note: the professor or the instructor will provide positive or encouraging feedback when he or she saw the students' achievement)

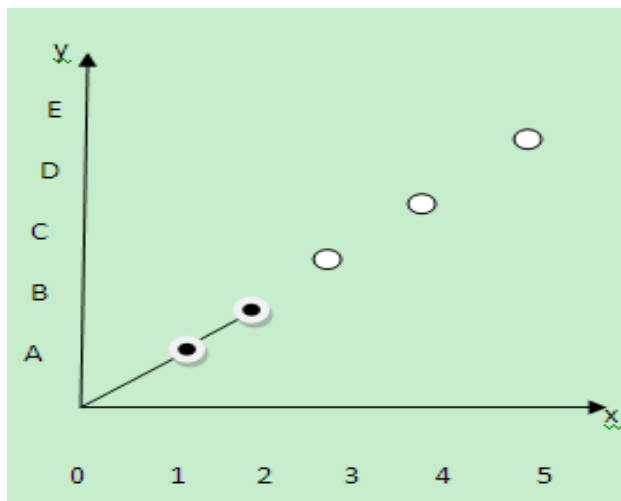


Figure A-4 Goal Progress

This chart represents the second goal being fulfilled by the students and three more goals need to be attained. (Note: the professor or the instructor will provide positive or encouraging feedback when he or she saw the students' achievement)

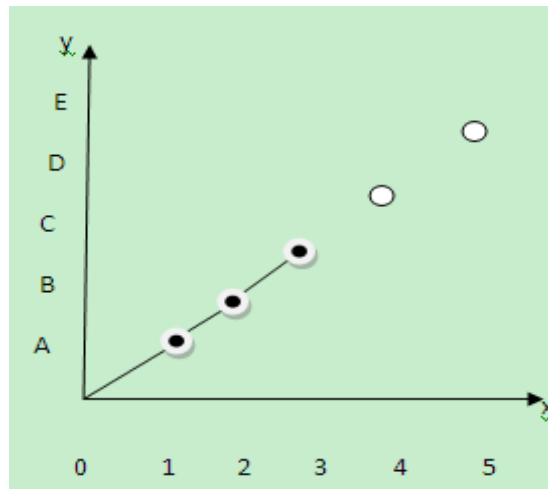


Figure A-5 Goal progress

This chart represents the third goal being fulfilled by the students and three more goals need to be attained. (Note: the professor or the instructor will provide positive or encouraging feedback when he or she saw the students' achievement)

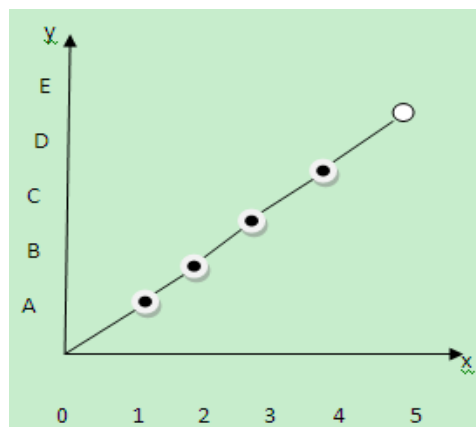


Figure A-6 Goal Progress

This chart represents the fourth goal being fulfilled by the students and three more goals need to be attained. (Note: the professor or the instructor will provide positive or encouraging feedback when he or she saw the students' achievement)



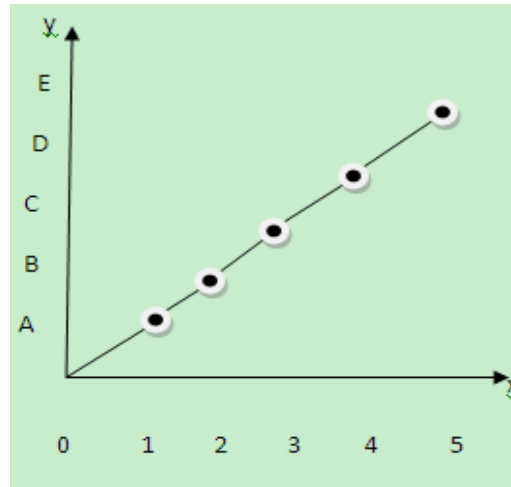


Figure A-7 Goal Progress

This chart represents all the goals being fulfilled by the students and three more goals need to be attained. (Note: the professor or the instructor will provide positive or encouraging feedback when he or she saw the students' achievement)

**APPENDIX D**  
**QUESTIONS ON MOTIVATION TYPES**

请在下一页选择您的宝贵观点，选项有（按从右到左的顺序）

**Please select your valuable choice in the following page. The selection starts from right to the left.**

- 1 = Strongly disagree (非常不同意);**
- 2 = Disagree (不同意);**
- 3 = Neither Agree nor Disagree (不同意也不反对);**
- 4 = Agree (同意);**
- 5 = Strongly Agree (非常同意);**
- Not applicable (无我需要选项) = N/A**

<h2 style="margin: 0;">学习动机调查问卷</h2> <h3 style="margin: 0;">Questionnaire on Motivation types</h3>	<p style="margin: 0;">Strongly Disagree</p> <p style="margin: 0;">Disagree</p> <p style="margin: 0;">Neither Agree nor Disagree</p> <p style="margin: 0;">Agree</p> <p style="margin: 0;">Strongly Agree</p> <p style="margin: 0;">Not Applicable</p>
<p><b>Instructions:</b> 请在您所要的选项画圈 Please circle one answer for each statement below.</p>	<p><b>SD</b>   <b>D</b>   <b>NA/D</b>   <b>A</b>   <b>SA</b>   <b>N/A</b></p>

### START HERE

1. I fell in love with English at the first sight, without particular reasons.	1	2	3	4	5	N/A
2. I began to study English because my parents/school required me to learn it.	1	2	3	4	5	N/A
3. Before entering university, my purpose of learning English was mainly to obtain high scores in the university entrance examination.	1	2	3	4	5	N/A
4. Before entering university, my effort of English learning depended to a large extent on test scores.	1	2	3	4	5	N/A
5. Before entering university, my effort of English learning depended to a large extent on whether I liked my English teacher or not.	1	2	3	4	5	N/A

6.	After entering university, my effort of English learning has depended to a large extent on test scores.	1	2	3	4	5	N/A
7.	After entering university, my effort of English learning has depended to a large extent on whether I like my English teacher or not.	1	2	3	4	5	N/A
8.	After entering university, my effort of English learning has depended to a large extent on the quality of English classes.	1	2	3	4	5	N/A
9.	After entering university, my effort of English learning has depended to a large extent on the quality of English textbooks.	1	2	3	4	5	N/A
10.	After entering university, my effort of English learning has depended to a large extent on whether I like the fellow students in the English class.	1	2	3	4	5	N/A
11.	An important purpose for my English learning is to obtain a university degree.	1	2	3	4	5	N/A
12.	The direct objective of my English learning is to obtain high scores in examinations concerning going abroad or career development in China.	1	2	3	4	5	N/A
13.	Learning English is important for me, because English is a very useful tool in contemporary society.	1	2	3	4	5	N/A
14.	Learning English can give me a sense of achievement.	1	2	3	4	5	N/A
15.	I learn English in order to facilitate the learning of other academic subjects	1	2	3	4	5	N/A
16.	Only with good English skills can I find a good job in the future.	1	2	3	4	5	N/A
17.	I learn English so as to catch up with economic and technological developments in the world.	1	2	3	4	5	N/A
18.	I learn English because I am interested in English speaking peoples and their cultures.	1	2	3	4	5	N/A

**APPENDIX E**  
**QUESTIONS ON SELF-CONFIDENCE**

请在下一页选择您的宝贵观点，选项有（按从右到左的顺序）

Please select your valuable choice in the following page. The selection starts from right to the left.

- 1 = Not confident at all (非常不自信);
- 2 = Not Confident (自信);
- 3 = Don't know (不知道);
- 4 = Confident (自信);
- 5 = Very Confident (很自信);
- Not applicable (无我需要选项) = N/A

<h2 style="margin: 0;">学习自信心调查问卷</h2> <h3 style="margin: 0;">Questionnaire on self Confidence</h3>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Not confident at all</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Not confident</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Don't know</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Confident</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Very confident</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Not Applicable</div> </div>						
<p><b>Instructions:</b> 请在您所要的选项画圈 Please circle one answer for each statement below.</p>	<table style="margin: 0 auto; border-collapse: collapse;"> <tr> <td style="font-size: x-small;">NWA</td> <td style="font-size: x-small;">NW</td> <td style="font-size: x-small;">NA/D</td> <td style="font-size: x-small;">W</td> <td style="font-size: x-small;">VW</td> <td style="font-size: x-small;">N/A</td> </tr> </table>	NWA	NW	NA/D	W	VW	N/A
NWA	NW	NA/D	W	VW	N/A		

### START HERE

1. How confident are you in memorizing English words?	1	2	3	4	5	N/A
2. How confident are you in using English words to make sentences?	1	2	3	4	5	N/A
3. How confident are you in identifying the meaning of your memorized English words?	1	2	3	4	5	N/A
4. How confident are you in describing things by using the words you learned?	1	2	3	4	5	N/A
5. How confident are you in dedicating yourself to learning the English words?	1	2	3	4	5	N/A
6. How confident are you in understanding the meaning of your selected English articles after you improved your English vocabulary?	1	2	3	4	5	N/A
7. How confident are you in using at least 150 English words to write a short story about yourself after you improved your English vocabulary?	1	2	3	4	5	N/A

8.	How confident are you in using at least 100 English words orally to tell a short life story of yours after you improved your English vocabulary?	1	2	3	4	5	N/A
9.	How confident are you in understanding your listening practice in your English class after you improved your English vocabulary?	1	2	3	4	5	N/A
10.	How confident are you in communicating with your foreign teachers after you improved your English vocabulary?	1	2	3	4	5	N/A
11.	How confident are you in doing well with your English exam after you improved your English vocabulary?	1	2	3	4	5	N/A

**APPENDIX F**  
**TABLE FOR METHODOLOGY**



### Stage One (Duration: 3 weeks)

DATE/ITEMS	CLASS/GROUP	INSTRUCTOR	TARGET STUDENTS	INSTRUMENT	INTERVENTION	TESTS	NOTE
February 21 <sup>st</sup>	Class one(Control group)	Teacher A	n=53 students	None	Students were given 200 English words to remember for two weeks (The English words were retrieved from their own English text book)	None	
February 21 <sup>st</sup>	Class two(Experimental group)	Teacher B	n=53 students	None	Students were given 200 English words to remember for two weeks (Depending on how much words their English text book requires them to learn in two weeks)	None	
<b>Two weeks duration</b>							
March 14 <sup>th</sup> & 16 <sup>th</sup>	Class one/Control Group	Teacher A	n=53 students	Motivation questionnaire Self efficacy questionnaire (The questionnaires was given on 14 <sup>th</sup> of March)	N/A	Yes. Test was given on March 16 <sup>th</sup> (the test was available in the targeted foreign language school)	Through a multiple choice test, the students would be identifying the correct words
March 14 <sup>th</sup> & 16 <sup>th</sup>	Class two/Experimental group	Teacher B	n=53 students	Motivation questionnaire Self efficacy questionnaire (The questionnaires will be given	N/A	Yes. Test was given on March 16 <sup>th</sup> (the test was	Through a multiple choice test, the students would be identifying

	on 14 <sup>th</sup> of March)	available in the targeted foreign language school)	the correct words
<b>Note</b>			
<p>Before the research study began, the researcher had already contacted the professors in the target foreign language college to get the professor's agreement in collaboration (for each participating professor, they will be given 1500 RMB [Chinese currency that equals to about 300 USD). Upon arriving in the targeted school he introduced his idea of helping students to create their own learning goals and pace and manage their own learning progress toward English words memorization on a progress charts.</p> <p>The teacher recruited his or her students who would voluntarily participate in this research study.</p> <p>After recruiting, the students were randomly classified into two groups, the Experimental group and the control group. The students were read the consent form (Note: both groups got a consent form because they are all tested and they are given the questionnaires)</p>			

## Stage Two (Duration: 3 weeks)

DATE/ITEMS	CLASS/GROUP	INSTRUCTOR	TARGET STUDENTS	INSTRUMENT	INTERVENTION	TESTS	NOTE
<b>March 18<sup>th</sup></b>	Class one(Control group)	Teacher A	n=53 students	None	None	None	It is the researchers' intention that the control group gets nothing because the researcher intends to compare the effect of using the self set goal charts to without the charts
<b>March 18<sup>th</sup></b>	Class two(Experimental group)	Teacher B	n=53 students	None	The instructor spend about 30-40 minutes in the class to introduce the idea of the self created goal strategy and teach them how to use this strategy	None	
<b>Three days duration</b>							It is the researchers' intention that there were three days duration for the students to get familiar with the self created goal setting strategy
<b>March 21<sup>st</sup></b>	Class one/Control Group	Teacher A	n=53 students	None	In the class, students were given 250 English words	None	
<b>March 21<sup>st</sup></b>	Class two/Experimental	Teacher B	n=53 students	None	In the class, students	None	

group				<p>were given 250 English words</p> <p>The students were instructed to use their self created goal progress charts to keep track of their word memorization progress</p> <p>The instructor ensured that the students will get feedback on their learning progress or challenges.</p>
<b>Two Weeks Duration</b>				
<b>April 11<sup>th</sup>-13<sup>th</sup></b>	Class one/Control Group	Teacher A	n=53 students	<p>Motivation questionnaire Self efficacy questionnaire (The questionnaires were given on 11<sup>th</sup> of April)</p> <p>None</p> <p>Yes. Test will be given on April 13<sup>th</sup> (the test was available in the targeted foreign language school)</p> <p>Through a multiple choice test, they would be identifying the correct words</p>
<b>April 11<sup>th</sup>-13<sup>th</sup></b>	Class one/Experimental group	Teacher B	n=53 students	<p>Motivation questionnaire Self efficacy questionnaire (The questionnaires were given on 11<sup>th</sup> of April)</p> <p>None</p> <p>Yes. Test will be given on April 13<sup>th</sup> (the test was available in the targeted foreign language school)</p> <p>Through a multiple choice test, they would be identifying the correct words</p>
Note				
<p>Teacher A and teacher B were the same person.</p> <p>After giving the English words, the instructor taught both groups in read-after-me strategy to learn the words but only experimental group was given the instruction as how to create and use the goal progress chart and the feedback concerning their progress.</p>				

Then the comparison was made.

The students were required to use the proposed goal setting strategy after agreeing for participation.

Every Friday afternoon for the students' self study time (Question and Answer time) in the class, the teacher in the experimental group gave the feedback on the students' progress or challenges. Students were required to bring their charts to let the teacher know about their learning progress.

After gathering the data, the research would compare the data from control group and experimental group.

Then the researcher will compare the data gathered from stage one to the date gathered from stage two to investigate the possible change of motivation and self efficacy.

Based on the revision of research questions, effort were made to align those with the measurement strategies used. (for example: SPSS)

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