科技部補助專題研究計畫成果報告
期末報告

藝術相關科系學生在專業訓練與英語學習中自我調節與學習方法之比較研究

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中 華 民 國 104 年 08 月 26 日

中 文 摘 要 ： 本計劃之目的在於研究藝術相關科系學生自我調節:包含記憶
策略、目標設定、自我評量、尋求幫忙、環境結構、學習責
任、計劃和組織,與學習方法:包含深層和表面方法,在專業
科目與英語學習之比較。在台灣,大部分的藝術類課程著重
在專業的訓練,學生使用大部分的時間在練習樂器、舞蹈、
繪畫和表演,英語的學習在藝術領域通常被忽略。然而,由
於全球化的來臨,職場上越來越要求學生的英文能力,再加
上英文畢業門檻的要求,藝術類的學生必須面對英文的重要
性。根據自我調節(Self-regulation)的理論,有高度自我調
節的學生通常學習動機較高,其意味著這些學生比較願意去
學習而且也有自己學習的方法,他們可以把自己的心智的力
量轉化成學術的技巧策略,藝術相關科系學生在其專業領域
是最好的,那在學習英語文上呢?兩個領域之間的自我調節行
為是否有差異和關聯呢? 七種自我調節子策略對不同英文程
度的學生線上全民英檢的成績之預測力是否有所不同？本研
究之另一個目的是把學習方法和自我調節做一連結,學習方
法包含深層方法和表面方法,學生在學習專業科目和英語文
時,比較傾向使用深層方法?還是表面方法? 本研究根據實驗
結果,找出藝術相關科系學生的英語學習模式,幫助他們提
升英語文能力。

本計劃實驗參與者約為 550 位藝術相關科系大一新生,依大
學指考英文成績分為高成就與低成就兩組,實驗參與者填寫
兩份問卷,第一份問卷為「專業科目的自我調節與學習方法
問卷調查」,第二份問卷為「英語文學習的自我調節與學習
方法問卷調查」,問卷的題目來自 Magno 的「學術自我調節
問卷」和 Biggs 的「學習方法問卷」。實驗參與者每學期皆
會接受線上全民英檢施測,成績一方面做為學生對自我英語
能力的了解,也做為老師備課時的參考,在本計劃中將做為
檢視自我調節與英語文程度之間的關係。問卷完成後,在
2013 年 7 月邀請學生和老師試作與訪問,問卷已依照建議修
改。結果顯示學生的自我調節能力與其專業和英語學習有正
面而且顯著性的相關,他們在其專業領域上的自我調節能力
比在英語學習高,在七個自我調節能力中,目標設定、自我
評量和計劃與組織是有顯著性的預測因子。而且藝術相關科
系學生在專業領域和英語學習上都是使用較多的深層式學習
法,表面式學習法與學生的自我調節能力呈現負的顯著性相
關。

臺灣許多藝術家和藝術工作者在國際大放異彩,政府在推廣
軟實力的同時,語言能力是不可或缺,藝術類的學生在本身
的專業領域是最傑出的,部份學生在專業能力和英文程度上
都是很好,本計劃找出學生在專業科目和英語學習中自我調

節和學習方法的不同，藉以幫忙英文程度較差的藝術類的學生，增加英語學習動機和增進英語文能力。

中文關鍵詞： 自我調節、深層方法、表面方法、藝術相關科系學生

英文摘要：
The study investigates the self-regulatory behaviors of arts students, namely memory strategy, goal-setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, and planning and organizing. We also explore approaches to learning, including deep and surface approaches, in a comparison between their professional training and English learning. The participants comprised 344 arts majors who are freshmen, taking a General English class. According to their scores on the English General Scholastic Ability Test (GSAT), they were arranged into two groups: high and low proficiency learners. The research tools included two questionnaires. The first questionnaire was Academic Self-regulation Questionnaire (Adapted for Professional Training and English Learning), consisting of 55 items and 7 subscales. The second questionnaire is the Revised Learning Process Questionnaire, comprising 20 items. The results show that a significant correlation was found in students' self-regulatory behaviors between professional training and English learning. It indicated that the more students applied self-regulatory behaviors in professional training, the more they used it in learning English. Goal-setting, self-evaluation, and planning and organizing were significant predictors for learning English. Also, arts students used more deep approach than surface approach in both of their professional training and English learning. Positive correlation was found in DA whereas negative correlation was shown in SA between students' self-regulatory behaviors and their approaches to learning. Students with high self-regulation adopt deep approach, and they applied less surface approach in professional training and English learning. Arts students' unique styles were found in this study and thus were added to the

current literature of self-regulation and approaches
to learning.

英文關鍵詞：　Self-regulatory, Deep Approach, Surface Approach, Art
Majors

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（期末報告）

藝術相關科系學生在專業訓練與英語學習中自我調節與學習方法之比較研究
Self-regulatory Behaviors and Approaches to Learning of Arts Students:
A Comparison Between Professional Training and English Learning

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計畫主持人：曾敏珍
共同主持人：陳嘉成
計畫參與人員：翁于晴

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中 華 民 國 104 年 07 月 10 日

目錄

Self-regulatory Behaviors and Approaches to Learning of Arts Students:
A Comparison Between Professional Training and English Learning
藝術相關科系學生在專業訓練與英語學習中自我調節與學習方法之比較研究

摘要

　　本計劃之目的在於研究藝術相關科系學生自我調節：包含記憶策略、目標設定、自我評量、尋求幫忙、環境結構、學習責任、計劃和組織，與學習方法：包含深層和表面方法，在專業科目與英語學習之比較。在台灣，大部分的藝術類課程著重在專業的訓練，學生使用大部分的時間在練習樂器、舞蹈、繪畫和表演，英語的學習在藝術領域通常被忽略。然而，由於全球化的來臨，職場上越來越要求學生的英文能力，再加上英文畢業門檻的要求，藝術類的學生必須面對英文的重要性。根據自我調節(Self-regulation)的理論，有高度自我調節的學生通常學習動機較高，其意味著這些學生比較願意去學習而且也有自己學習的方法，他們可以把自己的心智的力量轉化成學術的技巧策略，藝術相關科系學生在其專業領域是最好的，那在學習英語文上呢?兩個領域之間的自我調節行為是否有差異和關聯呢？七種自我調節子策略對不同英文程度的學生線上全民英檢的成績之預測力是否有所不同？本研究之另一個目的是把學習方法和自我調節做一連結，學習方法包含深層方法和表面方法，學生在學習專業科目和英語文時，比較傾向使用深層方法?還是表面方法？本研究根據實驗結果，找出藝術相關科系學生的英語學習模式，幫助他們提升英語文能力。

　　本計劃實驗參與者約為 550 位藝術相關科系大一新生，依大學指考英文成績分為高成就與低成就兩組，實驗參與者填寫兩份問卷，第一份問卷為「專業科目的自我調節與學習方法問卷調查」，第二份問卷為「英語文學習的自我調節與學習方法問卷調查」，問卷的題目來自 Magno 的「學術自我調節問卷」和 Biggs 的「學習方法問卷」。實驗參與者每學期皆會接受線上全民英檢施測，成績一方面做為學生對自我英語能力的了解，也做為老師備課時的參考，在本計劃中將做為檢視自我調節與英語文程度之間的關係。問卷完成後，在 2013 年 7 月邀請學生和老師試作與訪問，問卷已依照建議修改。結果顯示學生的自我調節能力與其專業和英語學習有正面而且顯著性的相關，他們在其專業領域上的自我調節能力比在英語學習高，在七個自我調節能力中，目標設定、自我評量和計劃與組織是有顯著性的預測因子。而且藝術相關科系學生在專業領域和英語學習上都是使用較多的深層式學習法，表面式學習法與學生的自我調節能力呈現負的顯著性相關。

臺灣許多藝術家和藝術工作者在國際大放異彩，政府在推廣軟實力的同時，語言能力是不可或缺，藝術類的學生在本身的專業領域是最傑出的，部份學生在專業能力和英文程度上都是很好，本計劃找出學生在專業科目和英語學習中自我調節和學習方法的不同，藉以幫忙英文程度較差的藝術類的學生，增加英語學習動機和增進英語文能力。

Self-regulatory Behaviors and Approaches to Learning of Arts Students:
A Comparison Between Professional Training and English Learning

Abstract

The study investigates the self-regulatory behaviors of arts students, namely memory strategy, goal-setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, and planning and organizing. We also explore approaches to learning, including deep and surface approaches, in a comparison between their professional training and English learning. The participants comprised 344 arts majors who are freshmen, taking a General English class. According to their scores on the English General Scholastic Ability Test (GSAT), they were arranged into two groups: high and low proficiency learners. The research tools included two questionnaires. The first questionnaire was Academic Self-regulation Questionnaire (Adapted for Professional Training and English Learning), consisting of 55 items and 7 subscales. The second questionnaire is the Revised Learning Process Questionnaire, comprising 20 items. The results show that a significant correlation was found in students' self-regulatory behaviors between professional training and English learning. It indicated that the more students applied self-regulatory behaviors in professional training, the more they used it in learning English. Goal-setting, self-evaluation, and planning and organizing were significant predictors for learning English. Also, arts students used more deep approach than surface approach in both of their professional training and English learning. Positive correlation was found in DA whereas negative correlation was shown in SA between students' self-regulatory behaviors and their approaches to learning. Students with high self-regulation adopt deep approach, and they applied less surface approach in professional training and English learning. Arts students' unique styles were found in this study and thus were added to the current literature of self-regulation and approaches to learning.

Keywords: Self-regulatory, Deep Approach, Surface Approach, Art Majors

Introduction

   Psychological aspects of learning play an especially critical role in the acquisition of a second language. Students' learning can be facilitated by the enhancement of self-regulation, which is an individual's judgment of his or her capabilities to organize and execute the courses of action required to attain designated types of performance (Bandura, 1986). Students with high self-regulation are more willing to take challenges, expend greater effort, show greater persistence when facing obstacles, demonstrate lower anxiety levels, show flexibility in the use of learning strategies, self-evaluate their academic performance with greater intrinsic motivation in academic settings, and self-regulate better than other students (Mills, Pajares, & Herron, 2007). Conversely, having low self-regulation significantly hinders their performance (Bandura, 1986). They tend to prefer uncomplicated tasks, apply minimal effort, display limited persistence, or choose to leave a school assignment unfinished. Based on these reasons, self-regulation is said to be a better predictor of academic success (Bandura, 1997). Most Taiwanese students majoring in the arts have attended talent classes in subject areas such as music or fine arts since junior or senior high school, and in university they spend most of their time practicing their professions. Since their time is occupied by extensive practice, some academic subjects are often neglected, including English. However, as the importance of English is increasing and every university has set an English proficiency level as part

of their graduation requirements, arts students must acknowledge that they cannot give up on English and just focus on their professional training since they have various opportunities to attend international performances, exhibitions, concerts, conferences, and contests.

Also, arts students differ from comprehensive university students in that they have to spend most of their time in practicing their professions, especially after entering a university. To support this requires more than the average ability for self-regulation, which is defined as "the process we use to activate and sustain our thoughts, behaviors, and emotions in order to reach our goals" (Woolfolk, 2005, p. 435). It is also seen as the ability to set goals and mobilize the efforts and resources needed to reach these goals. When the goals are related to learning, it is referred to as self-regulated learning (Bandura, 2002). Regulation here also contains the meaning of "control" (Baumeister & Vohs, 2007). It indicates the exercise of controlling oneself, and bringing the self up to the desired standards. For example, a dance major is required to frequently check their weight, and they need to control their appetite to keep fit and endure physical pain in order to be good dancers. These students are setting goals such as a performance or a contest, and using all their efforts and resources to practice dancing. Music majors must stay in the rehearsal rooms to practice day and night. They have to control themselves to escape from the seduction

of going out with friends or other entertainment. Animation majors need to sit in front of a computer for appropriately six months in order to finish a five-minute short film with one character. As Bandura (1986) stated, students with self-regulation monitor what they are doing, compare their process with an internal standard, criticize or praise themselves, and have confidence in their skills. Students majoring in the arts are applying all or part of their self-regulatory behaviors so they can become top students in the arts, but is it the same with learning English?

There is a stereotype that arts students do not do very well in their academic subjects, and this is what I was told when I first taught English at an arts university. However, after I had started to teach these students, it was clearly not the case. Some arts students indeed do very well in both of their professions and their English proficiency. This has stimulated me to find a way to help other arts students who may be accomplished in their specialties but not in English. Self-regulation is a domain specific which means high efficacy in one academic subject does not guarantee high efficacy in another (Bandura,1997), but can this ability be transferred to another area? Theses arts students are performing very well in their professions, and can this be used to improve their learning English? Are their self-regulatory behaviors correlated with their professional training and English learning?

Wolters and Pintrich (1998) stated that there may not be variations in

self-regulation by context. They compared 545 students' self-regulated learning in mathematics, English, and Social Studies, and the results revealed no mean level differences in regulatory strategy use among these subjects. Miller (2005) explored the source of self-regulated learning in English and math, and found these two subjects show a positive correlation, which indicates a strong association between the two subjects. Buehl and Alexander (2005) compared students' motivation and performance differences in history and math. A tendency was found for students to be relatively consistent in the sophistication of their beliefs of motivation across domains. Other studies (Pintrich & De Groot, 1990; Stodolsky & Grossman, 1995; McClelland, Connor, Jewkes, Cameron, Farris & Morrison, 2007) support this viewpoint. These previous studies provide the basis for this current research. In this student, a similar argument is made for variations in the use of self-regulatory behaviors by domains or situations. We compare about 344 arts students' self-regulatory behaviors between their professional training and English learning. With regard to this argument, it is predicted that self-regulation is domain-specific according to Bandura's point of view. More specifically, we determine which self-regulatory behaviors, namely memory strategy, goal-setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, and planning and organizing, are higher or lower in their professional training than English learning from the perspectives of high proficiency

learners and low proficiency learners.

Furthermore, Winner and Cooper (2000) in their article "Mute those claims" found there was actually no evidence for a causal link between studying the arts and improved academic achievement. This challenged a strong belief that has developed among policymakers and arts advocates that the arts can play a powerful role in education because the skills and attitudes learned through the arts can help students in academic areas of learning. This conclusion may sound gloomy if it indicates that the arts have failed to support success in academic areas. However, Oreck, Baum, and Owen (1997) found the opposite results in their report based on observing talented arts students at the ArtsConncetion, which was founded in 1979 through a collaboration between the New York City Department of Cultural Affairs, the New York City Youth Bureau, and the New York City Board of Education. They studied talented art students' self-regulatory behaviors and their academic performance. This is also another basis for the research direction of this study. They conducted a longitudinal study over six years, and demonstrated that artistically talented students applied a range of self-regulatory behaviors and effective learning strategies to academic tasks. They noticed students' improvement on standardized English reading tests, and provided evidence that successful learning strategies and behaviors in the arts can be transferred to learning academic tasks. In their report, they found the

art-talented students had self-set performance goals and expressed confidence in their artistic ability. Interviews revealed that the students were aware of the strategies necessary to succeed in their particular art forms. The students described how they set personal goals and criticized or complemented themselves for their performance. These students were not explicitly taught the regulatory behaviors. Oreck, Baum, and Owen's studies shed the light that self-regulatory behaviors are a promising area for the study of transferring between the arts and the other academic subjects because they can be developed and observed in both the arts and the regular classroom. However, Winner and Cooper (2000) pointed out a flaw in Oreck, Baum and Owen's (1997) study.

> *…They compared self-regulatory behavior but did not test for a correlation between academic and behavioral outcomes. A correlational test was needed if they needed to determine whether the behavioral outcome actually was related at the individual level with academic improvement…* (p.72)

Therefore, in addition to comparing the students' performance in professional training and English learning, the study also examine their relationship, using a correlational test as suggested by Winner and Cooper. The study scrutinize the relationship between self-regulation and the students' academic performance in

learning English, and further to examine the relationship of their self-regulatory behaviors between their professional training and English learning.

The other purpose of this study is to link self-regulation with deep and surface approaches. Students use a variety of learning strategies and approaches when engaged in learning English, which makes them exert effort in using cognitive strategies and approaches to learning (Hayes & Hayes, 1981; Kellogg & Raulerson, 2007). Approaches to learning consist of deep and surface approaches to learning (Kember, Biggs, & Leung, 2004). Deep approach to learning is adopted by students according to the kind of learning task they are engaged in (Marton & Saljo, 1976) whereas surface approach involves the memorization of material that does not require understanding (Baumgart & Halse, 1999). Magno (2009a) assessed the relationship between self-regulation and study approaches to learning of English composition writing. A different pattern in the consequence of deep and surface approach is found among Taiwanese students. There are few studies regarding deep and surface approaches in Taiwan, and even fewer of these that focus on the arts students. Thus the results are served to the literature of deep and surface approaches to learning English as foreign language.

In sum, four research questions are addressed in this study:

1. Is there any difference of students' self-regulatory behaviors between professional

training and English learning? Do arts students with different English proficiency

levels show significant differences among the seven self-regulatory behaviors of

memory strategy, goal-setting, self-evaluation, seeking assistance, environmental

structuring, learning responsibility, planning, and organizing, as these are applied

in professional training and in English learning?

2. What is the relationship between students' professional training and English

learning? Among the seven sub-scales of self-regulatory behaviors, which one

best predicts students' English language ability? Stepwise regression analysis

3. Is there a significant difference between deep approach and surface approach for

arts students with different English proficiency levels in their professional training

and English learning? Repeated measure *t*-test was used for research question

4. How are arts students' self-regulatory behaviors related to their approaches to

learning in their professional training and English learning? Pearson cross

product correlation

Literature Review

While there are many different theoretical stances around which the study could

have been framed, this study is informed by two major theoretical perspectives that

we believe to lend ourselves to solid the ideas and applications for the experiment.

Self-regulation

Self-regulation is one of the most exciting and challenging topics in all human behavior. It means the processes by which the human beings exercises control over its function, states, and inner processes, and it refers to how the self is put together (Baumeister & Vohs, 2007). Self-regulation involves three processes: self-observation, self-judgments, and self-reactions (Bandura, 1986). Self-observation means that students could track specific aspects of their functioning. Self-judgment refers to comparisons of one's performance with a standard, such as studying English for at least an hour per day. Self-reaction is explained as motivational and behavioral inferences that students draw from their performance outcomes, such as beliefs about one's efficacy.

Three factors influence the process of self-regulation (Woolfolk, 2005). The first one is knowledge. Self-regulated students need knowledge about themselves, the subject, the task, learning strategies, and the situation in which they will apply their learning. They understand that different learning tasks require different approaches. For example, they know what is easy and what is hard for them. They understand sometimes they need a mnemonic strategy for a simple memory task, but they need concept maps of the key ideas to approach complicated comprehension. The second factor is motivation. Self-regulated students are motivated to learn. They find school activities interesting, and they cherish learning. They know why they are studying, so

their actions and choices are self-determined and not controlled by others. The third

factor is volition. With knowledge and motivation, it is not always enough.

Self-regulated students need volition or self-discipline. Volition means 'will power'

and it also means protecting opportunities to reach goals. Self-regulated students

know how to protect themselves from detractions, how to cope with anxiety,

drowsiness, and laziness, and what to do when they are tempted to stop working or

studying (Corno, 1992).

Self-regulated learning strategy has been used and studied in different fields. In

the language learning setting, Chularut and DeBacker (2004) investigated the

influence of concepts mapping on achievement, self-regulation, and self-efficacy in

students of English as a second language. Seventy-nine ESL students participated in

the study, and a randomized pre-test-post-test control group was employed. The

findings showed a statistically significant interaction of time, method of instruction,

and level of English proficiency for self-monitoring, self-efficacy, and achievement.

Law, Chan and Sachs (2006) investigated the beliefs about learning, self-regulated

strategies and text comprehension among Chinese children. The results revealed two

contrasting factors of constructivist and reproductive beliefs about learning. High

achievers outperformed low achievers on beliefs, strategy and comprehension scores.

Constructivist beliefs led to text comprehension over and above the effects of grade

and strategy. In 2006, Tseng, Dornyei, and Schmitt proposed a new approach to assess strategic learning in the case of self-regulation in vocabulary acquisition. The results showed that the approach had satisfactory psychometric characteristics, and it had a good fit with the data which provided evidence for the validity of transferring the theoretical construct of self-regulation from educational psychology to the area of second language acquisition. Huang (2008) assessed motivation and learning strategies by using the motivated strategies for learning questionnaire in a foreign language learning context. She compared the similarities' and differences in general English and L2 learning. Motivated Strategies for Learning Questionnaire (MSLQ) was used. The results indicated that L2 learning is similar to other subjects in the school environment, and the MSLQ had the potential to be applied to L2-related studies. In 2010, Huang examined two types of classroom assessment: the more closed convergent assessments vs. the more open-ended divergent assessments. The results showed that convergent assessments were better accepted by high self-efficacious students and divergent assessments by low scorers. In the speaking class, student motivation and strategy were higher for the divergent assessment than for the convergent assessment whereas in the listening class, the patter was reversed. Comparing these studies with this study, arts students with different English proficiency levels are the major subjects and their self-regulatory behaviors are

compared between their professional training and English learning.

Deep and Surface Approaches

To link self-regulation with deep and surface motive, it is imperative to discuss the difference between motivation and motive first. Wells (2011) defines that motive and motivation can be often seen as synonyms. Motive is the drive to any activity. It is independent of the specific individual who enact the necessary roles on any particular occasion whereas motivation in individual. It is the individual's needs to achieve personal well-being through engaging them in the activity on a particular situation (Damasio, 2003).

The concept of "approaches to learning" consists of deep and surface approach (Kember, Biggs, & Leung, 2004). The original study of approaches to learning derives from Marton and Saljo' study in 1976. In their experiment, they gave students an academic text to read and asked students to answer questions on that text. The students were divided into two groups. The first group adopted an approach that they tried to understand the whole picture of the text and comprehended and understood the academic works. They were identified with using deep approach. The second group of students was asked to remember facts contained within the text, pointing out and focusing on what they thought they would be asked later. They demonstrated by using a surface approach. Deep approach means "the approach wherein the students

actively and mentally engage their selves with the study material. It is supposed to be the result of intrinsic motivation. Self-regulation and awareness of one's earning capacity. It is also the intention to extract meaning, produces active learning processes, and monitoring the development of one's own understanding" (Magno, 2009a, p.2). In 1999, Baumgart and Halse investigated the approaches to learning across cultures and they stated that deep approach favors western learners because they attribute success with ability and effort. They both were interested in the learning task and in learning it well. The study was about fourteen years ago. Since the promotion of internationalization in Taiwan and other Asian countries, the result was needed to be verified by adding more data. Kember, Biggs and Leung (1999) point out four subscales under deep approach. The first one is intrinsic interest. It is the interest that is shown by students to a particular subject area such as love for dancing or painting. The second subscale is commitment to work. This is the interest that students become prepared to work on their studies. It is like the result of intrinsic interest. The third one is relating ideas. It is to link the ideas that students learn from the subject areas with adding previous knowledge from past subjects that are related to the material being learning. The fourth subscale is understanding. This is the one that tells the difference between surface and deep approach. Simply stated, deep approach means the critical analysis of new ideas linking them to already know knowledge and concept, and leads

to understanding and long-term retention of concepts so that they can be used for problem solving in unfamiliar contexts.

On the other hand, surface approach involves memorization of the material that does not require understanding such as memorizing vocabulary or grammatical rules. Magno (2009b) explained that surface approach is the product of specific situation demands for learning tasks that brings great pressure to students. It is more expected when students is experiencing anxiety because of a heavy workload. Entwistle, McCune and Walker (2001) point out that the intention of surface approach is to complete tasks. No intrinsic motivation is seen from the participants it is purely memorization and usually require no high level of comprehension. As indicated from Baumgart and Halse's study (1999), surface approach favors learning of students mostly from Asian cultures. They prefer rote memorization. However, even though Asian students are perceived as such, they still manage to be successful and they think success is from effort not ability. Magno also found that Asian students see surface approach to be functional in the learning process because it begins about positive consequences for them. Again, the studies from Baumgart, Halse, and Magno are all conducted from the point of "western researchers". More data and studies conducted by Asian researchers are required to verify the concept and stereotype of western learners favor deep approach and eastern learners like surface approach. Kember,

Biggs and Leung (1999) also point out four subscales under surface approach. The first one is fear of failure. It is the fear of not being able to complete the test or being afraid of the humiliation for failing afterwards. The second one is aim for qualification. It refers to extrinsic motivation, for example, to win a prize to add value to a resume or further education. The third one is minimizing the scope of the study. It means to select learning, cut down all unnecessary details and go disadvantage. The fourth subscale is memorization. It is the lowest form of thinking, purely recall and no understanding at all. To summarize surface approach, it is the tactic acceptance of information and memorization as isolated and unlinked facts. In contrast to deep approach, it leads to superficial retention of material for examinations and does not promote understanding or long-term retention of knowledge and information. One crucial thing to remember is that students should not be identified with a fixed approach to learning, but it is the design of learning opportunity that encourages our students to adopt a particular approach.

Numerous studies show that deep approach positively correlated with academic tasks (Chun-Keung & French, 1997; Guthrie, Wigfield & VonSecker, 2000). In 1991, Gow, Kember, and Chow studied relationship between approach to learning and English language ability for students in Hong Kong and they found that students with lower ability in English to be more likely to adopt a surface strategy and deep

motivation was positively related to English language ability. As Baumgart and Halse identified the differences of learning approach between western and eastern learners, Kember (2000) verified the misconceptions about the learning approaches, motivation, and study practices of Asian students. He broke the stereotypes that Asian students depend on rote learning and preferred passive forms of learning. The data was collected from 90 action research projects. The results showed that memorization could occur in conjunction with the intention to understand and disapproved the concept that Asian students liked rote learning and resisted teaching innovations. The arts students in this study do not sit in front of their desks and study all day long. There are abundant practices but not rote learning or memorizing the content of the textbooks. Their evaluations are gauged by their artwork or performances. Innovation is critical to them. The study intend to find out the study approach of these students majoring in the arts and make a comparison. In 2006, Heikkila and Lonka studied students' approaches to learning, self-regulated learning and cognitive strategies for students in Finland. They found approaches to learning, regulation of learning, and cognitive strategies were related to each other and to study success. In 2007, Lee, Johanson, and Tsai explored Taiwanese high school students' conceptions and approaches to learning science through a structural equation modeling analysis. Two questionnaires were used: The Conceptions of Learning Sciences (COLS)

questionnaire and the Approaches to Learning Science (ALS). A structural equation model was adopted to process the data. The results demonstrated that students with constructivist concepts of learning science tended to use deep approaches to learn science. "Testing" and "calculate & practice", two critical concepts of learning science, were proved to have effects the surface approaches whereas "applying" and "understanding and seeing in a new way" had obvious effects on deep approaches to learn science. Baeten, Kyndt, Struyven, and Dochy (2010) used student-centered learning environments to stimulate deep approaches to learning and they found the factors encouraging or discouraging their effectiveness. The findings show that students in different disciplines differed in the approach to learning they adopt. Generally, students in human sciences demonstrated the deepest approach. If teachers were involved and oriented towards students and changing their conceptions, students tended to use a deep approach. It was also found that students were satisfied with the course quality use a deep approach. Older students and students who are open to experience, extraversion, conscientiousness, agreeableness and emotional stability were inclined to use deep approach. At last, students with intrinsic motivation, high self-confidence and self-efficacy and with preference to teaching methods that support understanding sided with deep approach. The present study includes Taiwanese students majoring in the arts, and the result sums up the literature and relevant studies

of deep and surface approach to learning English as foreign language.

Methodology

Participants

Arts students selected as participants in the study were based on the following reasons: (1) the components of motivations such as self-regulation, deep and surface approach, and strategy were manifested in the English learning process (Magno, 2009a). (2) The process of learning professions such as dance, painting, acting, and playing musical instruments goes was significantly related to abilities in self-regulation (Mcpherson & Zimmerman, 2002) and approaches to learning processes (Baum, Oreck, & Owen, 1997). (3) Learning English, dance, painting or acting required students to exert effort in the use of cognitive strategies such as self-regulation and goal setting for learning (Marton & Saljo, 1976).

A total of 344 first-year undergraduate students of an arts university in northern Taiwan participated in this study. They majored in art-related fields and they were from fourteen academic departments of four colleges. The distribution of student population was shown in Table 1. The numbers of students from each department ranged from 13 to 36. Originally, about 500 copies of questionnaires were distributed, but some students filled out the professional training version not English version, vice

versa. Only the students who answered both versions were considered as valid

questionnaires.

Table 1

The Distribution of Student Population

Majors	Numbers	Percentage	Accumulated percentage
Craft & Design	17	4.9	4.9
Architecture Art Conservation	13	3.8	8.7
Multimedia and Animation Arts	26	7.6	16.3
Fine Art	26	7.6	23.8
Music	35	10.2	34
Chinese Painting and Calligraphy	20	5.8	39.8
Chinese Music	23	6.7	46.5
Visual Communication Arts	32	9.3	55.8
Motion Pictures	28	8.1	64
Graphic Communication Arts	36	10.5	74.4
Dance	27	7.8	82.3
Radio & Television	24	7.0	89.2
Sculpture	14	4.1	93.3
Drama	23	6.7	100
Total	344		100

The participants were arranged into two groups: high proficiency learners (HPL)

and low proficiency learners (LPL), according to their scores in the subject of English

at General Scholastic Ability Test (GSAT), which was developed by College Entrance

Examination Center of Ministry of Education in Taiwan. The score range was from 1

to 15. The median number of the participants was 12, which divided the students into high and low English proficiency. The mean score for high proficiency learners was 13.29 (*SD = .94*) and it was 9.27 (*SD = 1.93*) for low proficiency learners. A significant difference (*p* < .005) was found between the two groups. It signaled that students in the HLP group obtained a significantly higher score than the ones in the LPL group.

Materials

Two questionnaires were used in this study: the Academic Self-regulation Questionnaire and the Revised Study Process Questionnaire.

Questionnaires

Two versions of questionnaires were developed. The first one was the Questionnaire for Professional Training and the second one was the Questionnaire for English Learning. Before explaining the questionnaires, it was necessary to define the terms "professional training" and "English learning" as used in this study. Professional training referred to the basic practices, not the theoretical classes in different arts fields. As an example, for dance majors, professional training means the time they spent in the dance studio, not in classes on dance theory. For music majors, it referred the time they were actually practice their instruments, not in classes on

music theory. In their English learning, the arts students were different from English majors. They went to the language lab, put on their headsets and did numerous exercises or drills to practice their listening, speaking, reading, and writing skills. They did not learn linguistics, literature or the methods of language learning. These explanations were provided in the instructions for the questionnaires.

Questionnaire for Professional Training

This questionnaire had three parts: Part I Demographic information, Part II the Academic Self-regulation Questionnaire (Adapted for Professional Training), and Part III the Revised Learning Process Questionnaire – Two Factorial (Adapted for Professional Training).

Part I Demographic information:

There were six questions in this section, covering gender, age, and the length of time spent with professional training. The purpose of this section was to provide information about whether the questionnaires were distributed to a sufficiently broad sample to represent the study population.

Part II Academic Self-regulation Questionnaire (Adapted for Professional Training)

The academic self-regulation questionnaire was designed by Magno (2009a), based on the model of Zimmerman and Martinez-Pons (1986; 1988). There are 55

items with 7 subscales: memory strategy (14 items), goal-setting (5 items),

self-evaluation (12 items), seeking assistance (8 items), environmental structuring (5

items), learning responsibility (5 items), and planning and organizing (5 items). Each

item is answered using a four-point scale (strongly agree=4, agree=3, disagree=2,

strongly disagree=1).

Part III Revised Learning Process Questionnaire – Two Factorial (Adapted for

Professional Training)

The Revised Learning Process Questionnaire was originally designed by Biggs

(1987a, 1987b) in the 1970s. Because of the change of educational environment,

Biggs, together with Kember and Leung, revised the questionnaire in 2001. The

questionnaire consisted of 20 items. There were 10 items for the deep approach and

10 for the surface approach. A 5-point Likert Scale was used where A = "Never or

only rarely true of me", B = "sometimes true of me," C = "half the time," D =

"frequently true of me", and E = "Always or almost always true of me." The deep

approach included deep motive (DM), and deep strategy (DS), whereas the surface

approach covered surface motive (SM), and surface strategy (SS). To obtain the main

scale scores, the formula was as follows:

$DA = Q1 + Q2 + Q5 + Q6 + Q9 + Q10 + Q13 + Q14 + Q17 + Q18$
$SA = Q3 + Q4 + Q7 + Q8 + Q11 + Q12 + Q15 + Q16 + Q19 + Q20$

The subscale scores were calculated as below:

DM = Q1 + Q5 + Q9 + Q13 + Q17
DS = Q2 + Q6 + Q10 + Q14 + Q18
SM = Q3 + Q7 + Q11 + Q15 + Q19
SS = Q4 + Q8 + Q12 + Q16 +Q20

The questionnaire questions in Part II and Part III, originally written in English, were translated by the author into Chinese. Two procedures were taken to guarantee the accuracy of translation. First, the source version of the questionnaires was translated into Chinese by the author and then the Chinese version was translated back into English by a language specialist from a comprehensive university who was familiar with English and Chinese. The back translation was for two purposes, to ensure that the actual meaning of the source questionnaire was maintained and to make a comparison between the English and Chinese versions.

Questionnaire for English Learning

This questionnaire also had three parts: Part I Demographic information, Part II the Academic Self-regulation Questionnaire (Adapted for English Learning), and Part III the Revised Learning Process Questionnaire – Two Factorial (Adapted for English Learning). The questions were the same, except the context was changed to English learning. For example, "I make a detailed schedule of my daily activities in my professions" are reworded into "I make a detailed schedule of my daily activities when learning English."

Reliability of the Questionnaires

An indicator of the trustworthiness of quantitative research tools is the questionnaire's reliability. This indicates that the developed questionnaire would give the same results if it measures the same thing (Neuman, 2001). The proposed questionnaire's reliability is evaluated by the Internal Constancy Approach. This approach is based on calculating the correlation coefficient between each item score and the score of the whole scale, using Cronbach's alpha coefficient. The Cronbach's alpha of questionnaire for professional training was .92 and it was .93 for questionnaire of English learning. The two questionnaires reached high reliability.

Procedure

Before the experiment, students were told that their identities, scores, and responses were kept confidential. Only the researchers had the access to process these data and information. In the first week of the General English class, the questionnaires regarding students' professional training were distributed and the following week, the questionnaires about English learning were given out. There were two reasons for separating the times of filling out the questionnaire: First, the questionnaire was too long if students were asked to answer all the questions about professional training and English training at the same time. Second, the separation helped avoid bias from comparing professional training and English learning.

Upon the completion of the questionnaires, the data was analyzed using an SPSS (Statistical Package for the Social Sciences), 17.0 Program for Windows and Microsoft XP, Excel. A t-test was adopted to retrieve the answers for research question 1. Stepwise regression analysis was used to assess how students' GEPT scores can be explained in terms of seven sub-scales of self-regulatory behaviors between their professional training and English learning. It was predicted that more significant predictors were positively related with students from the group of HPL (High Proficiency Learners).

The scores of online GEPT for LPL (Low Proficiency Learners)

$(Y_{LPL}) = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7$

The scores of online GEPT for HPL (High Proficiency Learners)

$(Y_{HPL}) = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7$

Repeated measure *t*-test was used for research question 3, and Pearson cross product correlation was used in statistically processing research question 4.

Results

To find the differences of students' self-regulatory behaviors between professional training and English learning, a t-test was implemented. The mean score of self-regulatory behaviors in professional training was 165.10 (*S.D.* = 17.58) whereas the mean score of self-regulatory behaviors in English learning was 154.40

(*S.D.* = 20.92). A significant difference (*p* < .005) of self-regulatory behaviors was found between professional training and English learning. It revealed that students' self-regulatory in professional training was different from learning English, and students adopted more self-regulatory behaviors in their professions than in learning English.

The differences of students' seven self-regulatory behaviors between professional training and English learning were shown in Table 2. Significant differences were found in memory strategy, goal-setting, self-evaluation, seeking assistance, and learning responsibility. The mean scores of the four subscales in professional training were significantly higher than English learning. However, no significant differences were detected in environmental structuring, and planning and organizing.

Table 2

The Results of t-test for Students' Self-regulatory Behaviors Between Professional Training and English Learning

		M	SD	*t*	*p*-value
Memory Strategy	Professional Training	40.52	5.11	10.10	.000***
	English Learning	37.49	5.71		
Goal setting	Professional Training	13.67	2.53	10.91	.000***
	English Learning	12.01	2.75		
Self-evaluation	Professional Training	37.99	5.19	10.23	.000***
	English Learning	34.67	5.43		
Seeking	Professional Training	24.19	3.39	7.41	.000***

assistance	English Learning	22.72	3.65		
Environmental	Professional Training	15.68	2.56	-.19	.851
structuring	English Learning	15.71	2.74		
Learning	Professional Training	15.27	2.40	6.55	.000***
responsibility	English Learning	14.34	2.55		
Planning &	Professional Training	17.83	2.67	1.96	.050
organizing	English Learning	17.51	3.03		

Note. *** *p* < .005.

To examine students' English proficiency levels with self-regulatory behaviors as these were applied in professional training and in English learning, the result revealed that the mean score of self-regulatory behaviors in professional training was 165.29 (*S.D.* = 17.35) and it was 156.96 (*S.D.* = 17.43) in learning English for HPL (high proficiency learners) group. On the other hand, the mean score of self-regulatory behaviors in professional training was 164.92 (*S.D.* = 17.86) and it was 151.92 (*S.D.* =23.56) in learning English for LPL (low proficiency learners) group. No significant difference was found in professional training, but a significant difference was found in English learning (*p*-value = .027 < .05.). To investigate the seven self-regulatory behaviors, namely memory strategy, goal-setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, planning, and organizing, as these are applied in professional training and in English learning. The results were shown in Table 3. In the professional training, no significant differences were found between HPL and LPL. However, significant differences were found in goal setting,

self-evaluation, and seeking assistance in learning English between the HPL and LPL

groups.

Table 3

The Seven Subscale of Self-regulatory behaviors for the HPL and LPL Group

		Groups	N	M	*SD*	*p-value*
Professional Training	Memory Strategy	LPL	172	40.73	5.19	.381
		HPL	172	40.25	5.00	
	Goal setting	LPL	172	13.53	2.67	.217
		HPL	172	13.87	2.37	
	Self-evaluation	LPL	172	37.99	5.35	.975
		HPL	172	38.01	4.98	
	Seeking assistance	LPL	172	23.87	3.49	.065
		HPL	172	24.54	3.23	
	Environmental structuring	LPL	172	15.72	2.59	.928
		HPL	172	15.69	2.55	
	Learning responsibility	LPL	172	15.34	2.39	.636
		HPL	172	15.22	2.40	
	Planning & organizing	LPL	172	17.74	2.66	.497
		HPL	172	17.94	2.71	
English Learning	Memory Strategy	LPL	172	36.91	6.47	.057
		HPL	172	38.08	4.74	
	Goal setting	LPL	172	11.71	3.09	.044*
		HPL	172	12.31	2.32	
	Self-evaluation	LPL	172	33.84	5.83	.004***
		HPL	172	35.52	4.84	
	Seeking assistance	LPL	172	22.12	4.03	.002***
		HPL	172	23.32	3.10	
	Environmental structuring	LPL	172	15.70	2.80	.912
		HPL	172	15.73	2.70	
	Learning responsibility	LPL	172	14.17	2.75	.228
		HPL	172	14.51	2.32	
	Planning & organizing	LPL	172	17.47	3.21	.794
		HPL	172	17.56	2.83	

Note. HPL = High Proficiency Learners, LPL = Low Proficiency Learners.

* $p < .05$. *** $p < .005$.

To correlate students' self-regulatory behaviors between professional training and English learning, a significant correlation was found (r = .530, $p<.000$). It indicated that the more students applied self-regulatory behaviors in professional training, the more they used it in learning English. A stepwise regression analysis was used to predict students' English language ability among the seven sub-scales of self-regulatory behaviors as these were applied in learning English (See Table 4). Two positive predictors were found in seeking assistance and self-evaluation, and one negative predictor was found in planning and organizing in learning English.

Table 4

Significant Predicators of Self-regulatory Behaviors in Learning English on Students' English Proficiency Levels

Subscales	B	SE(B)	ß	t	Sig.
Seeking assistance	.156	.060	.227	2.603	.010*
Planning and organizing	-.162	.071	-.196	-2.301	.022*
Self-evaluation	.101	.040	.220	2.508	.013*

Note. * $p < .05$.

To answer research question "is there a significant difference between deep approach and surface approach for arts students in their professional training and English learning?" , the mean score of deep approach was 31.46 (S.D. = 6.57) and it

was 19.91 (S.D. = 6.24) for surface approach in the professional training. The mean

score of deep approach was 27.36 (S.D. = 7.31) and it was 20.37 (S.D. = 6.54) for

surface approach in the English learning (See Table). Significant differences were

found between deep approach and surface approach in professional training and

English learning. Arts students applied deep approach when they studied and

practiced for their majors and English.

Table

The t-test of Deep Approach and Surface Approach between Processional Training

and English Learning

		M	SD	*t*	*p*-value
Professional Training	Deep Approach	31.46	6.57	24.35	.000***
	Surface Approach	19.31	6.24		
English Learning	Deep Approach	27.36	7.31	12.44	.000***
	Surface Approach	20.37	6.54		

Moreover, "do students with high and low English proficiency levels show

significant difference between deep approach and surface approach?" Significant

differences were found in DA, SA, DM, DS, SM, and SS in English learning (See

Table 5). In learning English, students with high proficiency levels, applied more deep

approaches and less surface approaches than low English proficiency levels.

Table 5

The Subscale of Approaches to Learning for the HPL and LPL Group

		Groups	*N*	*M*	*SD*	*p-value*
	DA (deep approach)	LPL	172	25.81	7.14	.000***
		HPL	172	28.95	5.41	
	SA (surface approach)	LPL	172	22.00	7.63	.000***
		HPL	172	18.71	6.60	
	Subscales					
English Learning	DM (deep motive)	LPL	172	12.92	4.14	.000***
		HPL	172	14.99	3.66	
	DS (deep strategy)	LPL	172	12.89	3.85	.008**
		HPL	172	13.96	3.58	
	SM (surface motive)	HPL	172	11.48	3.70	.000***
		LPL	172	9.88	2.93	
	SS (surface strategy)	LPL	172	10.54	3.87	.000***
		HPL	172	8.83	3.06	

Note. HPL = High Proficiency Learners, LPL = Low Proficiency Learners.

** *p* < .01, *** *p* < .005.

To find the answer for research question "how are arts students' self-regulatory behaviors related to their approaches to learning in their professional training and English learning?", significant correlations were discovered in professional training and English learning. Positive correlation was found in DA whereas negative correlation was shown in SA. It signals that students with high self-regulation adopt deep approach, and they applied less surface approach in professional training and English learning. To scrutinizing the four subscales, significant correlations appeared except SM in professional training. Positive correlations were shown in DM and DS in both professional training and English learning, but negative correlations existed in SS in professional training and SM and SS in learning English.

Table 6

The Correlation Between Students' Self-regulatory Behaviors and Approaches to

Learning

	Approaches to Learning	*r*	*Sig.*
Professional Training	DA	.457	.000***
	SA	-.116	.032*
	Subscales		
	DM	.451	.000***
	DS	.318	.000***
	SM	-.079	.146
	SS	-.134	.013*
English Learning	DA	.551	.000***
	SA	-.229	.000***
	Subscales		
	DM	.534	.000***
	DS	.497	.000***
	SM	-.234	.000***
	SS	-.200	.000***

Note. ** $p < .01$, *** $p < .005$.

Discussion

To answer research question "Is there any difference of students' self-regulatory behaviors between professional training and English learning?", a significant difference ($p < .005$) was found. Students' self-regulatory behaviors in professional training were different from learning English. The mean score of self-regulatory behaviors in professional training is higher than learning English. For the arts students,

they use and apply more self-regulatory behaviors in their professional training. It also signifies the importance of professional training for them than learning English. For example, music majors exercise more self-regulatory behaviors in practicing piano than English. The result proves Bandura's point of view that self-regulation is domain specific. It may sound glooming but a significant correlation is found between professional training and English learning. Unlike Wolters and Pintrich study, they compared students' self-regulated learning in mathematics, English and social studies, the three academic subjects. The study compares students' self-regulated behaviors between their professional training and English learning. It turns out their professional training out beat the importance of English.

Among the seven self-regulatory behaviors, significant differences are found in memory strategy, goal-setting, self-evaluation, seeking assistance, and learning responsibility. It indicates that arts students value their profession and apply more self-regulatory strategies than they do for learning English. The arts is what they love and they have learnt it since they are little. English is fundamental and necessary. Several students value it and are willing to invest time, but others don't. However, no significant differences are detected in environmental structuring, and planning and organizing. It means that when students choose studying environment, there is no difference between professional training and English learning. They turn off television,

avoid noisy places, and study under sufficient light. Also, they highlight important points, put handouts in a certain container, study at their own pace, fix things before studying, and make sure that study area is clean when they study or practice profession and English.

To answer the research question "Do arts students with different English proficiency levels show significant differences among the seven self-regulatory behaviors?", no significant differences were found in the professional training between HPL and LPL. It means that the way students learn and practice their profession is different from the way they are learning English. Students are good in their professions but not in learning English. However, significant differences were found in goal setting, self-evaluation, and seeking assistance in learning English between HPL and LPL. It means that students with high English proficiency levels would make a schedule or timetable for learning English; they plan things they have to do in a week, and keep track of their learning progress. They would seek assistance from someone whose English is better than they are, and they monitor their improvements. Also, they find different types of sources including going to library or ask classmates or friends.

A significant correlation was found (r = .530, *p*<.000) in students self-regulatory behaviors between professional training and English learning. It indicated that the

higher students applied self-regulatory behaviors in professional training, the higher they used it in learning English. In Miller's study, a positive correlation was also found by comparing English and math. It is the same in this study. Students may apply self-regulative behaviors differently between their profession and English, but a strong association between the two subjects is found. The higher students' self-regulation scores in profession, the higher they use it in learning English. Therefore, self-regulation is domain specific between arts students' profession and English, but there is a strong correlation between the two fields

Among the seven regulatory behaviors in professional training and learning English, three significant predictors are found. Among them, two predictors, goal setting and self-evaluation, are positive predictors to students' English proficiency levels. Students with good English set plans and goals. They make a detailed schedule to study English and monitor their improvements and progress. However, planning and organizing is a negative predictor to students' English ability. It is ambiguous in the first place, but when digging into the question items in the planning and organizing section. It is reasonable to justify why it becomes a negative factor. Students with higher English proficiency levels tend not to look at previous test, or store past notebooks and handouts in a certain container. They do not care that much to fix their things or make sure their study area is clean before studying English. For

students with good English, they have studied it since elementary schools. That is why they do not keep English learning materials. English is indispensable to them and they have already achieved a certain English proficiency levels. Therefore, time and effort is preferably preserved for their professions.

In a comparison between deep approach and surface approach, significant differences were found in professional training and English learning. Arts students use deep approach when they study and practice for their majors and English. Although the participants in this study are Taiwanese arts students, it begins to shatter the stereotype that Asian students favor rote learning and memorization, as indicated in Baumgart and Halse' study in 1999. The findings support Baeton et al.' study that students in human sciences make use of deep approach.

Significant differences are found in DA, SA, DM, DS, SM, and SS in English learning. For learning English, significant differences are found in DA and SA. It supports Gow, Kember, and Chow's (1991) study which they found that English language ability has a positive correlation with the deep motive scale and a non-significant positive correlation with deep strategy. This study shows that students with good English ability use more deep approach and less surface approach than low English proficiency learners.

To interrelate with self-regulation and approaches to study, significant

correlations were found in deep and surface approaches. It shows that a strong

connection is tied between self-regulation and approaches to study. Students with high

self-regulation favor deep approach. It is because self-regulation shares certain similar

meanings with deep approach. For example, students with high self-regulation make

greater effort and show greater persistence when facing obstacles and self-evaluate

their academic performance. Students who take deep approach will do enough work

until they will feel satisfied; they often spend extra time trying to get more

information. They test themselves to see if they understand them completely. On the

contrary, students with low self-regulation set low outcome expectations. They are

performance-oriented and have little intrinsic interest in academic learning tasks.

Students who prefer surface approach aim to pass the course with little effort, they

find no interest in the courses, they learn things by rote and memorize key sections

instead of trying to understand the course content. Heihhila and Lonka's study found

approaches to learning, regulation of learning, and cognitive strategies were related to

each other in the context of higher education. The novel contribution of the study is to

find a significant correlation between self-regulation and approaches to learning

English.

Limitations and Conclusion

Arts students are a unique group of students in Taiwan because they have learnt their professions since little, and they spend most of their time practicing their processions. However, the arts students cannot neglect the importance of English under the increasing opportunities and demands to attend international exhibitions, contests, concerts, and performances. The study detected a positive correlation of students' self-regulation in the setting of their professional training and English learning. The more students applied self-regulatory behaviors in professional training, the more they used it in learning English. It enlightens the belief that there might be some influence of arts on English achievement. However, more evidences are needed to consolidate the role of arts on academic achievements. The limitations of the study are: First, participants in study are arts students. A control group of students from different disciplines could be used as control group and compare it with arts students. Second, it is not easy to access students' scores in their professions due to the protection of students' privacy. Otherwise, students' scores in their professions can be compared with their scores in English proficiency scores.

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科技部補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現（簡要敘述成果是否有嚴重損及公共利益之發現）或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估 ☑達成目標 說明：本研究依照原訂計畫完成。其目的在研究藝術相關科系學生自我調節：包含記憶策略、目標設定、自我評量、尋求幫忙、環境結構、學習責任、計劃和組織，與學習方法：包含深層和表面方法，在專業科目與英語學習之比較。在台灣，大部分的藝術類課程著重在專業的訓練，學生使用大部分的時間在練習樂器、舞蹈、繪畫和表演，英語的學習在藝術領域通常被忽略。然而，由於全球化的來臨，職場上越來越要求學生的英文能力，再加上英文畢業門檻的要求，藝術類的學生必須面對英文的重要性。根據自我調節(Self-regulation)的理論，有高度自我調節的學生通常學習動機較高，其意味著這些學生比較願意去學習而且也有自己學習的方法，他們可以把自己的心智的力量轉化成學術的技巧策略，藝術相關科系學生在其專業領域是最好的，那在學習英語文上呢?結果顯示兩個領域之間的自我調節行為是顯著性的關聯，他們在其專業領域上的自我調節能力比在英語學習高。
2. 研究成果在學術期刊發表或申請專利等情形： 論文：□已發表 □未發表之文稿 □撰寫中 □無 ☑其他：（以 100 字為限） 本研究之成果預計發表在國際期刊，以英語教學期刊為優先例如: Language Learning (Impact Fact 1.61), System (Impact Factor 0.721), English in Education (Impact Factor 0.50), Language and Education (0.34)等，希冀引起更多有多藝術相關科系學生英語學習之相關研究，或是跨國性研究。
3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性），如已有嚴重損及公共利益之發現，請簡述可能損及之相關程度（以 500 字為限） 本研究結果顯示藝術相關科系學生在專業領域和英語學習上都是使用較多的深層式學習法，表面式學習法與學生的自我調節能力呈現負的顯著性相關。臺灣許多藝術家和藝術工作者在國際大放異彩，政府在推廣軟實力的同時，語言能力是不可或缺，藝術類的學生在本身的專業領域是最傑出的，部份學生在專業能力和英文程度上都是很好，本計劃找出學生在專業科目和英語學習中自我調節和學習方法的不同，藉以幫忙英文程度較差的藝術類的學生，增加英語學習動機和增進英語文能力。

科技部補助計畫衍生研發成果推廣資料表

科技部補助計畫	計畫名稱: 藝術相關科系學生在專業訓練與英語學習中自我調節與學習方法之比較研究
	計畫主持人: 曾敏珍
	計畫編號: 103-2410-H-144-001-　　　　學門領域: 英語能力研究

無研發成果推廣資料

103 年度專題研究計畫研究成果彙整表

計畫主持人：曾敏珍　　　計畫編號：103-2410-H-144-001-

計畫名稱：藝術相關科系學生在專業訓練與英語學習中自我調節與學習方法之比較研究

成果項目			量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）
			實際已達成數（被接受或已發表）	預期總達成數(含實際已達成數)	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	1	1	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%	章/本	
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

	其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等,請以文字敘述填列。)	本研究結果顯示藝術相關科系學生在專業領域和英語學習上都是使用較多的深層式學習法,表面式學習法與學生的自我調節能力呈現負的顯著性相關。臺灣許多藝術家和藝術工作者在國際大放異彩,政府在推廣軟實力的同時,語言能力是不可或缺,藝術類的學生在本身的專業領域是最傑出的,部份學生在專業能力和英文程度上都是很好,本計劃找出學生在專業科目和英語學習中自我調節和學習方法的不同,藉以幫忙英文程度較差的藝術類的學生,增加英語學習動機和增進英語文能力。

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

科技部補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

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1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

   ■達成目標

   □未達成目標（請說明，以 100 字為限）

   　　□實驗失敗

   　　□因故實驗中斷

   　　□其他原因

   　說明：

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2. 研究成果在學術期刊發表或申請專利等情形：

   論文：□已發表 □未發表之文稿 ■撰寫中 □無

   專利：□已獲得 □申請中 ■無

   技轉：□已技轉 □洽談中 ■無

   其他：（以 100 字為限）

   本研究之成果預計發表在國際期刊，以英語教學期刊為優先例如: Language Learning (Impact Fact 1.61), System (Impact Factor 0.721), English in Education (Impact Factor 0.50), Language and Education (0.34)等，希冀引起更多有多藝術相關科系學生英語學習之相關研究，或是跨國性研究。

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

   本研究結果顯示藝術相關科系學生在專業領域和英語學習上都是使用較多的深層式學習法，表面式學習法與學生的自我調節能力呈現負的顯著性相關。臺灣許多藝術家和藝術工作者在國際大放異彩，政府在推廣軟實力的同時，語言能力是不可或缺，藝術類的學生在本身的專業領域是最傑出的，部份學生在專業能力和英文程度上都是很好，本計劃找出學生在專業科目和英語學習中自我調節和學習方法的不同，藉以幫忙英文程度較差的藝術類的學生，增加英語學習動機和增進英語文能力。