

EFFECTS OF USING SELF-REGULATED  
LEARNING STRATEGIES ON ACADEMIC  
PROCRASTINATION AND ACADEMIC  
SUCCESS AMONG UNDERGRADUATE  
ENGLISH LEARNERS  
IN CHINA

XUE TAO

SULTAN IDRIS EDUCATION UNIVERSITY

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EFFECTS OF USING SELF-REGULATED LEARNING STRATEGIES ON  
ACADEMIC PROCRASTINATION AND ACADEMIC SUCCESS AMONG  
UNDERGRADUATE ENGLISH LEARNERS IN CHINA

XUE TAO

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## ABSTRACT

Self-regulated learning is an active learning process including strategy use, meta-cognition, and motivation. Self-regulation failure is the core problem of academic procrastination, which seriously threatens academic success. This research aims to study the direct effects of self-regulated strategies on academic procrastination and academic success among undergraduate students. It also investigated the mediation effect of academic procrastination on meta-cognitive strategies, time management, effort regulation, and student's academic success. A fully quantitative study was conducted, and a questionnaire survey which includes Tuckman Procrastination Scale, the Motivated Strategies for Learning Questionnaire, and the School Connectedness Scale was conducted among 239 university students who learn English as a foreign language. To explore the direct effects and indirect effects of time management, effort regulation, meta-cognitive self-regulation, academic procrastination, and academic success, AMOS structural equation modeling was adopted to analyze the data, and 10 hypotheses were tested. The results showed that there exists a significant positive relationship between meta-cognitive strategies and academic success. Learning strategies like effort regulation, meta-cognitive strategies, and time management are associated with academic procrastination negatively, and academic procrastination is related to academic success negatively. Time management and effort regulation do not relate to academic success. The mediation effects showed that Effort regulation and time management have a significant positive indirect effect on students' academic success by mediating academic procrastination, and academic procrastination does not mediate the relationship between meta-cognitive strategies and students' academic success. The application of effective self-regulated strategies and the reduction of academic procrastination can promote academic success among university EFL students. The implications of this study can help educators or teachers to instruct students to apply self-regulated learning strategies and models to English learning properly. For English learners, the better strategies they use, the less academic procrastination, and the better academic success they achieved.





## KESAN MENGGUNAKAN STRATEGI PEMBELAJARAN KENDIRI KE ATAS PENANGGUHAN AKADEMIK DAN KEJAYAAN AKADEMIK DI KALANGAN PELAJAR SARJANA MUDA BAHASA INGGERIS DI CHINA

### ABSTRAK

Pembelajaran sendiri adalah proses pembelajaran yang aktif termasuk penggunaan strategi, metakognisi, dan motivasi. Kegagalan mengawal diri adalah masalah utama yang menyumbang kepada situasi penangguhan akademik, yang akan mengancam kejayaan akademik seseorang itu. Penyelidikan ini bertujuan untuk mengkaji kesan langsung strategi kawalan sendiri terhadap penangguhan akademik dan kejayaan akademik dalam kalangan pelajar sarjana muda. Kajian ini juga menyiasat kesan pengantaraan penangguhan akademik terhadap strategi metakognitif, pengurusan masa, kawalan sendiri usaha, dan kejayaan akademik pelajar. Satu kajian kuantitatif sepenuhnya telah dijalankan, dan tinjauan soal selidik yang dibina berdasarkan Skala Penangguhan Tuckman (Tuckman Procrastination Scale), Soal Selidik Strategi Motivasi (Motivated Strategies for Learning Questionnaire), dan Skala Keterkaitan Sekolah (School Connectedness Scale) telah dijalankan dalam kalangan 239 pelajar universiti yang belajar Bahasa Inggeris sebagai bahasa asing. Untuk meneroka kesan langsung dan kesan tidak langsung pengurusan masa, kawalan sendiri usaha, kawalan sendiri metakognitif, penangguhan akademik, dan kejayaan akademik, pemodelan persamaan struktur AMOS telah diguna pakai untuk menganalisis data, dan 10 hipotesis telah diuji. Keputusan menunjukkan bahawa terdapat hubungan positif yang signifikan antara strategi metakognitif dan kejayaan akademik. Strategi pembelajaran seperti kawalan sendiri usaha, strategi metakognitif, dan pengurusan masa dikaitkan dengan penangguhan akademik secara negatif, penangguhan akademik berkaitan dengan kejayaan akademik secara negatif. Kawalan sendiri usaha dan pengurusan masa tidak berkaitan dengan kejayaan akademik. Kesan pengantaraan menunjukkan bahawa kawalan sendiri usaha dan pengurusan masa mempunyai kesan tidak langsung yang signifikan terhadap kejayaan akademik pelajar, dengan menjadi pengantara penangguhan akademik. Manakala penangguhan akademik tidak menjadi pengantara hubungan antara strategi metakognitif dan kejayaan akademik pelajar. Penerapan strategi sendiri yang berkesan dan pengurangan penangguhan akademik boleh menggalakkan kejayaan akademik di kalangan pelajar EFL universiti. Implikasi kajian ini dapat membantu pendidik atau guru mengarahkan pelajar untuk menerapkan strategi dan model pembelajaran sendiri untuk pembelajaran Bahasa Inggeris dengan betul. Bagi pelajar Bahasa Inggeris, dengan strategi yang lebih baik digunakan, penangguhan akademik dapat dikurangkan, dan kejayaan akademik yang lebih baik dapat dicapai.



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## LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness of Fit Index
AP	Academic Procrastination
AS	Academic Success
AVE	Average Variance Extracted
BUAS	Baoji University of Arts and Sciences
CET- 4	College English Test - Band 4
CFI	Comparative Fit Index
CFA	Confirmatory Factor Analysis
CR	Construct Reliability
df	Degree of Freedom
EFL	English as a Foreign Language
ER	Effort Regulation
GFI	Goodness of Fit Index
GLS	Generalized Least-squares
GPA	Grade Point Average
IELTS	International English Language Testing System
L2	Second Language
MSLQ	Motivated Learning Strategies Questionnaire
MSR	meta-cognitive self-regulation
RMSEA	Root Mean Square Error of Approximation
SCS	School Connectedness Scale
SE	Self-efficacy
S.E.	Standard Error

SEM	Structure Equation Modeling
SMC	Squared Multiple Correlation
SRL	Self-regulated Learning
Std.	Standardized Factor Loading
TEM – 4	Test for English Majors - Band 4
TLI	Tucker–Lewis index
TM	Time Management
TOEFL	The Test of English as a Foreign Language
TPS	Tuckman Procrastination Scale
Unstd.	Unstandardized Factor Loading
WoS	Web of Science
$\chi^2/df$	Chi-Square/



## CHAPTER 1

### INTRODUCTION



#### *The importance of English as a Foreign Language*

In today's internet-connected world, undoubtedly, English is the most popular language for international communication (Botes et al., 2020; Chauvin et al., 2020). Mastering it makes strategic sense, whether at an organizational level to gain a competitive edge in global markets or at an individual level to advance career opportunities (Chauvin et al., 2020; Harzing & Pudelko, 2013; Yamao & Sekiguchi, 2015). In many countries, insufficient English as a foreign language proficiency has been a concerned problem.

In a globalized modern world, English is the business, higher education, and lingua franca of science (Fleckenstein et al., 2020; Keller, 2013; Porsch & Köller, 2010).

In a globalized world, advanced English productivity and reception are important





factors for students' success in higher education as well as employ-ability (Fleckenstein et al., 2020; Fleckenstein et al., 2016).

The majority of English as a foreign language students come from countries such as China, Brazil, and Nepal (Karbalaei, 2010; Yang & Farley, 2019). Learning a language involves different goals and motivations to hold the commitment to the learning process (Gardner & Lambert, 1959; Qin, 2007; Yu et al., 2018). The success of China's high-pressure Exam-oriented Education System (Huang & Pan, 2011; Yu et al., 2018) requires higher proficiency in EFL, so there may be a strong sense of fear (for example, family shame caused by poor exam performance) in English language learning. Because English scores are so important in the National College Entrance Examination, they can have a big impact on how students imagine their future selves.

Without learning English well, the chances of becoming an overseas student or having a decent job are limited. The success of China's Exam-oriented Education System (Huang & Pan, 2011; Yu et al., 2018) put forward higher requirements for English as a foreign language and put English learning in an important position (Huang & Pan, 2011; Yu et al., 2018). Learning English well is very importance in China's National College Entrance Examination. For college students, English majors need to pass TEM-4, which is short for the Test for English Majors-Band 4, and non-English major students pass the CET-4, which is short for the College English Test –Band 4. In addition, the non-native English speakers who want to pursue higher education abroad need to pass IELTS or TOEFL. Thus, the fear of failing as a foreign language learner is an underlying powerful motivation for Chinese English learners. Furthermore, failure to learn English will be even worse for Chinese students because English plays an important role in education system in China (for example, in China, a prerequisite for getting a good job





is to pass the College English Test). The importance of English learning in China's high-pressure Exam-oriented Education System (Huang & Pan, 2011; Yu et al., 2018), coupled with the general significance of English for study abroad and future career success (Bolton & Botha, 2015; Yu et al., 2018), has created a terrible ego for Chinese learners in English learning. The present study investigated Chinese undergraduate students' learning strategies, the problem of procrastination, and the learning outcomes of English courses, so it is proper to use English as a foreign language.

### *Impact of self-regulated learning on foreign language learning*

Self-regulated learning offers a crucial angle of view on academic learning and is of great significance to students of all ages in many areas (Cho et al., 2020; Wolters et al., 2005; Zimmerman, 2002). Numerous empirical works have revealed that self-regulated learning is significantly related to higher learning motivation and academic performance (Cho et al., 2020; Phakiti et al., 2013; Pintrich, 2000; Purdie et al., 1996). In the process of foreign language acquisition, language learners are regarded as active participants, and they tend to use strategies regardless of their proficiency level (Cho et al., 2020; Oxford & Crookall, 1989). Studies have shown that strategy-dependent English language learners perform better on tests of English language proficiency (X. Chen et al., 2019; Green & Oxford, 1995; Lan & Oxford, 2003). The meta-analysis of learning strategy teaching showed that strategy teaching promotes learning and self-regulated learning of language learners (Ardasheva et al., 2017; Cho et al., 2020).

In many countries, English Proficiency is critical, including study abroad programs, college admissions, finding a job, and keeping a job (X. Chen et al., 2019; Wang & Bai, 2017). In China, effective strategies are not enough to help learners, which





leads to English learners' struggle when they learn the English language (X. Chen et al., 2019; Guo et al., 2018; Wang et al., 2012). Studies show that students who learn English depending on good use strategies show better performance on English proficiency tests (X. Chen et al., 2019; Green & Oxford, 1995; Lan & Oxford, 2003). Hence, English teachers should teach different learning strategies to students to promote the learning process and outcomes. In the context of teaching English as a foreign language, it is better to equip students with learning strategies to teach them how to acquire knowledge and assist them develop their self-regulation ability, rather than simply imparting knowledge to English students to improve their English language ability.

*Academic procrastination: failure of self-regulated learning*

There are two lines in the Chinese poem “the Song of Tomorrow” by Qian Fu of the Ming Dynasty said: “Tomorrow comes and again comes tomorrow, tomorrow are like rivers that endlessly flow. If all my things are put off till tomorrow, my time wasted to no purpose will brew woe.” The poem mentions "tomorrow" four times, and repeatedly warns people to cherish the time, do today's things today, do not put off tomorrow, and do not waste time. Today is the most precious, only firmly grasp today, to have a full tomorrow, to make a difference, have success. Otherwise, you will achieve nothing and cry over spilled milk. The familiar “Song of Tomorrow” indicates the disadvantages of procrastination and the helplessness of people trying to overcome them. At present, procrastination is a common behavior problem, which affects individuals' learning and physical and mental health, and has been a concern for educational psychologists since the last century.





Procrastination is an individual's behavioral tendency to delay the completion or start of a task, which is caused by a lack of self-regulation and within the individual's control. The failure of self-regulation usually refers to the failure of individuals to take actions successfully or take ineffective actions, the lack of activation of the individual self-regulation process, the failure of the regulation process, and the interference of other processes. Individuals fail to conduct reasonable and effective self-regulation in the learning process, which will harm their studies, such as a decline in academic success.

With the rapid development of education today, students may need educational help and support in the process of coping with procrastination. In addition, if we know which link of self-regulation has a greater impact on individual academic procrastination behavior, it can be used as the theoretical basis of psychological education to prevent procrastination. What is important is the need to understand how self-regulated learning ability and procrastination behavior affect the academic success of students so that pertinent recommendations can be made. The purpose of this study is to understand the relationship between self-regulated learning, academic procrastination, and academic success of college students, and the mediating role of procrastination between self-regulated learning and academic success, to improve students' academic success from the perspective of self-regulated learning and academic procrastination.





## 1.2 Background Research

With the popularization of higher education, the number of college students is increasing, but in this process, students' academic procrastination is becoming more and more common. Academic procrastination refers to individuals who are unable to complete learning tasks according to the expected time and plan, but choose to delay or postpone completion. Such behavior not only affects academic success but also hurts students' mental health. Therefore, it is of great practical significance to study the influence of college students' academic procrastination, self-regulated learning strategies, and academic success.

First of all, academic procrastination is a common problem among college students. About 80% of college students suffer from academic procrastination, and nearly 50% of them admit that they have academic procrastination problems. As college students face great changes in the living and learning environment, they need to gradually adapt to and establish an effective self-regulation mechanism. Therefore, understanding the causes and effects of college students' academic procrastination can help students better cope with challenges and improve academic success.

Secondly, self-regulated learning strategies play an important role in college students' academic procrastination. Self-regulating learning strategies refer to the way that individuals plan, implement, and adjust learning behaviors through self-monitoring, self-evaluation, self-reflection, and self-reinforcement. Studies have shown that there is a close relationship between self-regulated learning strategies and academic success. Moreover, self-regulating learning strategies also have a positive effect on alleviating





students' academic procrastination. Therefore, an in-depth study on how self-regulated learning strategies affect the occurrence and causes of college students' academic procrastination can help students develop more effective learning plans and practical strategies. The special point of "learner" as the main body is embodied in self-regulated learning. It is the embodiment of learning to learn, and also the most important ability to realize the ultimate learning. Learning to learn and lifelong learning has become the basic requirements for talents in today's society, and the public should be equipped with core nutrients, among which, Learning to learn and lifelong learning, self-awareness, and self-regulation are the most highly valued nutrition in the world (Jian et al., 2016). From the cognitive level, learning to learn is concerned with the operation of learning strategies; from the level of meta-cognitive, learning to learn is the master of learning refers to the learner's self-regulation of the learning process. It can be seen that one of the most important aspects of learning is that learners can guide, manage and reflect on themselves, and suddenly develop self-regulated learning and learning ability of learners.

Academic self-regulation means self-generation, reflection, and strategic participation in tasks in the academic setting (Lichtinger & Kaplan, 2011; Barry J Zimmerman, 2000). Self-regulation is vital for academic success, especially in institutions of higher learning, where students need to be responsible for the learning and different courses and activities may require various types of participation. A growing body of studies stresses the importance of self-regulation in college classrooms (Bembenutty, 2007; Lichtinger & Kaplan, 2011; Pintrich & Zusho, 2002; Vanderstoep et al., 1996; Wolters, 1998). Past study has highlighted that self-regulated learning strategies right have a major effect on the grades of students and helps improve their





performance. Self-regulated learning is related to students' preparation, commitment to academic tasks, and the way they manage their learning environment for achieving success (Palos et al., 2019; Singer & Bashir, 1999), and is closely related to the learning quality and academic performance (Palos et al., 2019; Young, 2005). Self-regulated learning often refers to the strategic attitudes and behaviors associated with academic success (Barton et al., 2018). Cyclical models of self-regulation (Valenzuela et al., 2020; Zimmerman, 1998) suggest that disorders such as poor decision-making ability or lack of perseverance may contribute to procrastination. Self-regulation failure is the core problem of academic procrastination, which seriously threatens the subjective well-being and academic achievement of students (Steel & Klingsieck, 2016; Valenzuela et al., 2020). Academic procrastination is one of the forms of self-regulatory failure, and its cumulative nature can lead to a pattern of self-defeating behavior characterized by long-term costs and short-term benefits (Dianne M Tice & Roy F Baumeister, 1997; N. Ziegler & M. C. Opdenakker, 2018). To extend previous research that procrastination is the cause of academic success caused by self-regulated learning failure. The results showed that procrastination has a negative impact on academic success (Cosnefroy et al., 2018).

Finally, the academic success of college students is also one of the focuses of this study. Academic success includes not only obtaining good grades but also individual self-efficacy and school satisfaction in the learning process. Many studies have shown a close relationship between academic success and self-regulated learning strategies. If college students can make good use of self-regulated learning strategies, they can achieve academic success better. Therefore, studying the relationship between college students' academic procrastination, self-regulating learning strategies and





academic success can provide better academic guidance and support for college students.

In conclusion, college students' academic procrastination is a problem that needs to be paid attention to, and this phenomenon will hurt students' academic success. In the process of solving this problem, self-regulating learning strategies and academic success both play a crucial role. Therefore, strengthening the study of college students' academic procrastination and exploring the influence mechanism of self-regulation learning strategies and academic success is helpful to formulate more effective educational policies and promote the academic development of college students. At present, there have been some research results on the problem of college students' academic procrastination. Among them, some studies discuss the causes and manifestations of academic procrastination, some studies focus on the influence of self-regulated learning strategies on academic procrastination, and some studies focus on the relationship between academic success and self-regulated learning strategies, believing that the improvement of self-regulation ability can promote students' academic success. However, there are still some problems that need further study and solution. First, although there have been many studies on the causes and effects of academic procrastination, the results of these studies tend to study the relationship between academic procrastination and other factors and lack a more comprehensive way to understand the current situation and influencing factors of college students' academic procrastination. Second, although self-regulated learning strategies have been shown to play an important role in reducing academic procrastination, how to help students effectively use these strategies still needs to be further explored. For example, how to cultivate students' meta-cognitive self-regulated strategies, time management





strategies, and effort regulation strategies, and how to establish an effective feedback mechanism to help students constantly optimize and adjust their learning strategies need to be further studied and practiced. Third, the definition and evaluation criteria of college students' academic success also need to be re-examined and formulated. In addition to traditional grades and grades, academic success also includes an individual's self-efficacy and school satisfaction during the learning process. Therefore, how to develop a more scientific and reasonable evaluation system for academic success and how to provide students with more diversified learning support and guidance is also one of the focuses of the research. In conclusion, the influence of college students' academic procrastination, self-regulated learning strategies, and academic success is a complex and important issue, which needs to be further studied. By strengthening research and practice, we can better understand the causes and effects of academic procrastination, help students establish an effective self-management mechanism, and promote the academic development of college students.

### 1.3 Problem Statement

More and more attention has been paid to procrastination, which has become a common problem. Academic procrastination is a kind of manifestation of procrastination in the field of learning and learning, which exists widely among the group of students. The impact of academic procrastination on students is multi-faceted. First of all, academic procrastination will lead to the depolarizing learning effect, which is also the most direct effect that a learning delay brings to students. Many studies suggest that academic procrastination is an important indicator of academic success. For those students who





are used to procrastination, the tendency to procrastinate seriously affects their learning field, quality of life, and speed and ability to grasp knowledge. Secondly, the unnecessary delay in learning activities will affect the students' self-regulation failure in the learning process. More and more attention has been paid to procrastination, which has become a common problem. Academic procrastination is a kind of manifestation of procrastination in the field of academic settings, which exists widely among the group of students. The impact of academic procrastination on students is multi-faceted. First of all, academic procrastination will lead to the depolarizing learning effect, which is also the most direct effect that academic procrastination brings to students. Many studies suggest that academic procrastination is an important indicator of academic success. For those students who are used to procrastination, the tendency to procrastinate seriously affects their learning field, quality of life, and speed and ability to grasp knowledge. Secondly, the unnecessary delay in learning activities will affect the students' self-regulation failure in the learning process.

The influencing factors of academic procrastination include resource management strategies such as time management and effort regulation, as well as meta-cognitive strategies such as planning, monitoring, and adjustment of learning. Then can the use of self-regulated learning strategies effectively reduce procrastination behaviors? Whether the reduction of learning procrastination can improve learning efficiency and achieve academic success; whether the use of self-regulated learning strategies can directly affect the achievement of academic success; and whether learning procrastination mediates the relationship between self-regulated learning strategies and academic success. Given the above problems, it is necessary for us to clarify the relationship between the three, domestic and foreign scholars have carried out part of





the relationship between the two, but the relationship between the three still needs to be further explored.

### **1.3.1 Promotion of students' academic success is a realistic problem faced by universities in China**

How to improve and ensure the quality and equity of higher education is a worldwide issue. The international community and governments attach great importance to it. At present, the quality of students in China's higher education has declined, and the employment situation of students after graduation is worrisome. While the expansion of college enrollment has brought more students college access, it has also caused many unprepared students to struggle to succeed academically when they enter college, which

ultimately leads to uncertain career prospects (Zhou, 2018). Focusing on the academic success of students is currently one of the top priorities of all higher education institutions. Therefore, the Chinese government has put forward the education goal of "building a high-quality education system and improving the quality of higher education", which requires that we should grasp the connotation of high-quality development of higher education, build a high-quality higher education system, and give full play to the leading, supporting and leading role of higher education.

High-quality undergraduate education is the basic guarantee to cultivating qualified or even excellent talents. The undergraduate graduation rate is one of the important indicators to measure the quality of higher education, which has a profound quality connotation, reflects the academic requirements of awarding degrees and diplomas and the seriousness of "advanced knowledge", and directly reflects the





teaching quality management level of a university. The graduation rate of colleges and universities is inseparable from the academic performance and performance of students, which often reflects the academic status of students in colleges and universities, and indirectly plays a role in the reputation and development of schools. Therefore, Chinese universities attach great importance to the academic achievement and performance of their students and continue to strive to improve the graduation rate of their students. For improving the quality of education, and for the personal development of students, it is crucial to improve the academic success of undergraduate English learners.

In higher education, most research investigated the relationship between self-regulated learning strategies, academic procrastination, and academic performance. However, less study investigated their relationship with academic success, whereas academic performance was one of the indicators of academic success (Farruggia et al., 2016), so academic success is a direct way to measure college students' learning outcomes.

### 1.3.2 Academic procrastination problem

Academic procrastination, or “the voluntary act of postponing a project despite the expectation that it will get worse because of the delay” (Rebetez et al., 2016; Piers Steel, 2007) is a common problematic phenomenon in education (Li, Gao, & Xu, 2020), which has been observed in different fields but is particularly evident in an academic environment, where approximately eighty percent to ninety-five percent of college students report this self-defeating behavior (Rahimi et al., 2016b), with an estimated





90% procrastinating for at least one hour per day (Klassen et al., 2008; Rahimi et al., 2016b).

Academic procrastination was considered a self-regulating failure (Rebetez et al., 2016; Piers Steel, 2007), which is in a pernicious form (Abdi Zarrin & Gracia, 2020). It stands for low conscientiousness, high impulsivity, and thought control problems (Dewitte & Schouwenburg, 2002; Gustavson et al., 2014; Harriott et al., 1996; Rebetez et al., 2016; Rebetez et al., 2015). Studies show that 70 percent of college students are moderate procrastinators and 14 percent are severe procrastinators (Chehrzad et al., 2017). According to past research, academic procrastination causes a severe threat to students' academic success (Jin et al., 2019; Kim & Seo, 2015; Steel & Klingsieck, 2016). In addition to the negative effects, in the last few years, an increasing number of



researchers have demonstrated the relevance of academic procrastination among college students in different cultures (B. B. Chen, 2019; Jin et al., 2019; Piers Steel, 2007; Zhang et al., 2018). Based on these findings, most studies considered that procrastination is one of the causes of self-regulation failure (Jin et al., 2019; Piers Steel, 2007; Steel & Klingsieck, 2016). Previous research also showed that academic procrastination was thought to be a problematic but widespread educational phenomenon. A lot of literature explains that procrastination is a dynamic and situational construct. However, it is difficult to trace related research about procrastination development in university EFL students (N. Ziegler & M. C. Opendakker, 2018). A lot of studies have examined the use of self-regulated learning strategies in second language learning (Cho et al., 2020). However, academic procrastination is a common problematic phenomenon that also exists among undergraduate EFL students, research on the role of learning strategies for





undergraduate EFL students' performance is sparse, especially meta-cognitive strategies, discussion, and effort regulation are considered (Roick & Ringeisen, 2018) (Albaili, 1997; Bembenutty, 2009; Burlison et al., 2009; Kitsantas et al., 2008; Lynch, 2006; Wolters et al., 2017) (Glenda C Rakes & Karee E Dunn, 2010; N. Ziegler & M. C. Opdenakker, 2018).

Academic procrastination leads to a severe threat to students' academic success including poor course grades, academic outcomes, and even course withdrawal. (Yang, Asbury, & Griffiths, 2019). In other words, academic procrastination leads to students' decreased academic success (Wolters & Brady, 2020). Past studies revealed that academic procrastination is related to academic success negatively. The research studied how is it found that academic success is a negative and meaningful predictor of academic procrastination as mentioned in the literature related to academic procrastination, that is, the decrease in academic success increases academic procrastination (Kandemir, 2014).

Academic procrastination is the tendency to delay or postpone tasks that are important for academic success. It is a common problem among students and has been shown to negatively affect academic achievement and well-being. Previous research has found that academic procrastination is related to lower levels of SRL and academic success, but the exact nature of these relationships and their underlying mechanisms are still not fully understood.

The previous study learned the connection between students' assessment beliefs and strategies of self-regulated learning in L2 learning and found that adaptive beliefs





about high-risk assessment of students are associated with the employment of knowledge transfer and self-regulated learning significantly (Cho et al., 2020). A study addressed how formative assessment support self-regulated learning of middle school students in English language learning, indicating that under the guidance of teachers, participants of formative assessment procedures proactively and gradually become self-regulated learners. In English language learning, Students believe that the formative assessment activities they experience in class and the feedback they receive contribute to their self-regulation and deep understanding (Xiao & Yang, 2019). However, learning procrastination is a common problem that also exists in college EFL students, research on the role of learning strategies for university English learners' performance in higher education is sparse, especially because meta-cognitive strategies are considered (Roick & Ringeisen, 2018). However, only a few studies have identified time management (which falls under resource management strategies) and SRL's other strategic aspects serve as potential predictors of students' academic ability (Albaili, 1997; Bembenutty, 2009; Burlison et al., 2009; Kitsantas et al., 2008; Lynch, 2006; Wolters et al., 2017).

There is a few studies worked on the relationship between effort regulation and academic procrastination, as well as its relationship with motivation, meta-cognitive structure, and self-efficacy (Komarraju & Nadler, 2013; Strunk & Steele, 2011; Sungur, 2007; N. Ziegler & M. C. Opdenakker, 2018). It provides strong evidence that effort regulation relates to academic procrastination negatively. A few research studied the relationship between effort regulation and procrastination (Glenda C Rakes & Karee E Dunn, 2010; N. Ziegler & M. C. Opdenakker, 2018). In higher education, most research investigated the relations between academic procrastination, academic performance, and self-regulated learning. However, less study investigated their relationship with





academic success, whereas academic performance was one of the indicators of academic success (Farruggia et al., 2016), so academic success is a direct way to measure college students' learning outcomes.

In previous studies, scholars have found the mediating effect of academic procrastination on other factors involving that academic procrastination mediates the relationship between math anxiety and math performance, between mobile phone dependence and depression, between teacher and student on academic performance, between academic burnout and subjective well-being, between students' positive perfectionism and positive emotions, between negative perfectionism and negative emotions, between math anxiety and math performance, between mobile phone dependence and depression, and between trait self-control and sleep problems, and so



on. Liao explored the relationship between time management tendencies, academic procrastination, and mental health. He used the academic procrastination scale, Time Management Tendency Scale, and Symptom Checklist to conduct a questionnaire survey on 262 college students from a university in Changsha city, Hunan Province. The results showed that academic procrastination had a partial mediating effect on time management tendencies and mental health (Zaihua et al., 2018). From the perspective of learning motivation and self-regulation, Huang conducted a questionnaire survey on 308 college students participating in online learning and explored the relationship among achievement goal orientation, academic procrastination, and online learning engagement through correlation analysis and structural equation method. The results show that achievement goal orientation can predict college students' online learning engagement through the mediating effect of academic procrastination (Qingshuang et al., 2019). Lin explored the relationship between mobile phone addiction, academic





procrastination, and academic self-efficacy, and found that academic procrastination played a complete mediating role in the relationship between mobile phone addiction and academic self-efficacy in college students (Baihua et al., 2020). Zhang explored the relationship between academic self-efficacy, learning burnout, and academic procrastination among college students, and found that academic procrastination plays a partial mediating role in academic self-efficacy and learning burnout (Jiarui et al., 2022). Wu explored the mediating role of academic procrastination between learning burnout and time management tendencies. Through a survey of 345 medical students in a university in Henan province, it was found that time management tendency indirectly affects learning burnout through academic procrastination (Yueping et al., 2018). Since so many researchers have found the mediating effect of academic procrastination, it is necessary to explore the relationship between self-regulated learning and academic success by the mediation of academic procrastination.



A survey on the status of academic procrastination among Chinese students shows that about 56% of college students procrastinate in examination reviews, and about 60% of college students procrastinate in completing homework, among which the procrastination of completing homework assigned by teachers is the most serious. Nowadays, academic procrastination has become a common behavior in college students' studies and life. In the past decade, the field of psychology and education in China has paid more and more attention to the phenomenon of academic procrastination in colleges and universities. On the one hand, the problem of academic procrastination is particularly prominent among college students. On the other hand, the behavior of academic procrastination often leads to negative results, such as making procrastination students suffer major setbacks in their studies or hindering their own performance and





future personal development. In China, there are still few studies on academic procrastination of undergraduate English learners, with a weak theoretical basis. Moreover, to solve the current situation of widespread academic procrastination among English learners, it is necessary to further study the factors affecting academic procrastination. Before determining the topic, a lot of literature related to procrastination and academic procrastination was collected. To reduce the impact of academic procrastination on students' academic success, researchers must deepen the discussion on the impact mechanism and preventive measures of academic procrastination. At present, the reform and policy of education in our country lay more and more emphasis on the cultivation of the students' autonomous learning ability. It emphasizes the leading role of individual students in learning. The learning of college students is characterized by independence, autonomy, and creativity, and the rapid development of individual thinking levels is the key period to develop and guide the acquisition of students' autonomous learning abilities.

Since the university stage, the supervision role of parents and teachers on students has gradually weakened, the autonomy of students' study time has been enhanced, and the autonomy of learning has higher requirements. The problem of academic procrastination has become a common phenomenon, and the tendency to procrastination has gradually become obvious, developing procrastination behavior as a coping strategy. In such a critical period of cultivating self-directed learning, it is particularly important to correct procrastination behavior, otherwise, it is likely to further develop into a relatively stable procrastination trait, which is more difficult to change. Therefore, it is of great theoretical and practical significance to understand the occurrence and development characteristics of academic procrastination of





undergraduate English learners, understand the formation mechanism of student procrastination, and take early prevention of academic procrastination.

### 1.3.3 Self-regulated learning strategies in the classroom environment in China

The use of self-regulation strategies plays a positive role in monitoring, regulating, and maintaining learners' writing and improving their writing confidence. Self-regulated learning ability is one of the important abilities of core literacy in the 21st century. It is considered the key component of self-regulated learning ability, which emphasizes the importance of learners' subjective initiative and setting goals in learning. Since the 21st century, education reform in many countries has taken cultivating students' autonomous



learning abilities as an important goal. Many national and international institutions have incorporated the teaching of self-regulated learning strategies into their national education plans as part of lifelong learning initiatives (Chen, 2022). Previous studies have found that although teachers can recognize the importance of self-regulated learning, most teachers do not integrate the teaching strategies regarding self-regulated learning with their daily classroom teaching. Moreover, scholars generally believe that failure of self-regulation will lead to academic procrastination. Just as the view of behavioral control theory, individuals will show procrastination behavior when they are facing a certain task, Unable to adjust the mode of control according to the situation, or unable to use various strategies. Research on self-regulation strategies is conducive to better use of regulation strategies in the teaching process, thus reducing academic procrastination and improving learning outcomes. However, from the perspective of research, it is almost a blank to investigate how academic delay is formed from the





perspective of development, and it is indispensable to explore the formation and mechanism of any personality trait from the perspective of development. In terms of procrastination, it should also have its own development and formation rules from procrastination tendency (early in college) to procrastination behavior (habitual coping style in the middle of college) to trait procrastination (a more stable personality trait in late college and later), which is mainly manifested as academic procrastination in college. From the perspective of research objects, the research on academic procrastination at home and abroad is mostly conducted on primary and secondary school students and students from vocational colleges and is also the most mature. However, the problem of academic procrastination among undergraduate English learners is also serious and at a critical stage. From the perspective of research methods, most studies on academic procrastination mainly use SPSS software for analysis, analyzing the direct relationship between academic procrastination and other variables, while there are few studies on the mediating effect of academic procrastination. Therefore, this study intends to design a structural equation modeling to comprehensively analyze the direct and indirect relationships among variables through AMOS software, and further investigate the current situation of academic procrastination among undergraduate English learners.

The problem of academic procrastination is troubling learners all over the world, and the research on the methods and measures to reduce it has been a hot field to be explored. As a form of self-regulation failure, academic procrastination is associated with problems occurring in all three stages of self-regulation, such as meta-cognitive strategies management of time management strategies, and effort regulation strategies that are part of external resource management. Educators need scientific theories and





specific and effective teaching suggestions as guidance, to develop students' self-learning ability, cultivate good learning habits, and actively deal with academic procrastination.

Therefore, this paper takes self-regulated learning as an important variable affecting academic procrastination and academic success and aims to explore the relationship between academic procrastination and self-regulated learning strategies and the academic success of undergraduate English learners, as well as the mediating relationship between academic procrastination and self-regulated learning strategies and academic success.



#### 1.4 Research Objectives



The previous studies mainly explored the connection between academic procrastination, academic success, and self-regulated learning, from different aspects, different areas, different environments, different countries, and different levels of people. Specifically, they explored the association of academic procrastination with meta-cognitive strategies or resource-management strategies, the association of academic procrastination with academic success, the association of meta-cognitive self-regulation with academic success or academic performance or academic achievement or subjective Learning Success, the association of resource-management strategies with academic success. The current study aims to explain the relationship between academic procrastination, self-regulated strategies, and academic success in college students' EFL environment.





The objective of the present work was to construct a framework to learn the association of self-regulated learning strategies with academic success by the mediation of academic procrastination in university EFL students. Concerning the model which investigated the effect of motivational strategies on the performance of students through the mediation of academic procrastination (Grunschel et al., 2016). This research was particularly focused on understanding how resource-management strategies (including effort regulation and time management) and the meta-cognitive strategy are associated with EFL students' academic procrastination and their learning success.

This study focuses on the following objectives:

1. To investigate the direct effects of meta-cognitive strategies, time management, and effort regulation on academic procrastination among undergraduate EFL students.
2. To investigate the direct effects of meta-cognitive strategies, time management, and effort regulation on academic success among undergraduate EFL students.
3. To investigate the direct effects of academic procrastination on academic success among undergraduate EFL students.
4. To investigate the indirect effects of meta-cognitive strategies, time management, and effort regulation on academic success on academic procrastination among undergraduate EFL students.

### 1.5 Research Question

Self-regulated learning is an important subject in the field of psychology and education for the last thirty years (Azevedo & Gašević, 2019; Boekaerts et al., 2005; Greene &





Schunk, 2017; Li et al., 2020; Steffens, 2006; Winne, 2019). Numerous models have been established to describe the ideal process of self-regulated learning. Self-regulation learning is a complex process with motivational, behavioral, and meta-cognitive processes (Ernesto Panadero, 2017; Wirth et al., 2020). Self-regulated learning (SRL) contains four main components of learner motivation, meta-cognitive awareness, resource management, and cognitive skills (Hartley et al., 2020; Muis, 2007; Schraw & Dennison, 1994; Usher & Schunk, 2018). And a good deal of studies proved that self-regulated learning strategy has positive influences on academic success (Loeffler, Bohner, et al., 2019). In detail, a previous study identified that meta-cognitive self-regulation predicts academic success significantly. academic success is positively associated with meta-cognitive strategies, effective learning time, deep processing strategies, and internal resource-management strategies (Loeffler, Bohner, et al., 2019).



What's more, in traditional learning settings, effort regulation, meta-cognition, and time management relate to academic success positively (Beishuizen & Steffens, 2011; J. Broadbent & W.L. Poon, 2015; Dignath & Büttner, 2008; Pintrich, 2004; Richardson et al., 2012; Zimmerman, 2008).

Procrastination was considered a failure of self-regulation, leading to a negative relationship between self-regulated learning and academic procrastination (N. Ziegler & M. C. Opdenakker, 2018). A study showed that academic procrastination impedes academic success because it affects the quantity and quality of learning negatively and results in low academic success (Batool, 2020; Howell & Watson, 2007). Based on earlier findings on self-regulation learning strategies relates to academic success and academic procrastination, the present study aims to explore the factors which affect university EFL students' academic success. Moreover, this study included effort



regulation, meta-cognitive self-regulation, and time management concerning academic procrastination and the success of EFL students in the university. This study pays attention to the following research questions.

**RQ1:** What is the relationship between meta-cognitive strategies, time management, effort regulation, and academic procrastination among undergraduate EFL students?

**RQ2:** What is the relationship between meta-cognitive strategies, time management, effort regulation, and academic success among undergraduate EFL students?

**RQ3:** What is the relationship between academic procrastination and academic success among undergraduate EFL students?

**RQ4:** What are the indirect effects of meta-cognitive strategies, time management, and effort regulation on academic success by the mediation of academic procrastination

## 1.6 Research Hypothesis

This study hopes to cultivate self-regulated learning strategies that can help university EFL students to overcome their academic procrastination, to better achieve academic success. Ten hypotheses have been investigated below.

Hypothesis 1: Meta-cognitive strategies are positively related to academic success.

Hypothesis 2: Effort regulation is positively related to academic success.

Hypothesis 3: Time management is positively related to academic success.

Hypothesis 4: Meta-cognitive strategies are negatively related to academic



procrastination.

Hypothesis 5: Effort regulation is negatively related to academic procrastination.

Hypothesis 6: Time management is negatively related to academic procrastination.

Hypothesis 7: Academic procrastination is negatively related to academic success.

Hypothesis 8: Academic procrastination significantly mediates the effect of meta-cognitive strategies on academic success.

Hypothesis 9: Academic procrastination significantly mediates the effect of effort regulation on academic success.

Hypothesis 10: Academic procrastination significantly mediates the effect of time management on academic success.



From the ways of thinking about SRL theory, the reduction in specific learning behaviors can be interpreted as when students can identify set instructional requirements and comply with them to successfully achieve the goal of learning outcomes, they are self-regulated learners (Van Laer & Elen, 2019; Wolters et al., 2017). As SRL is associated with many aspects of control and learning, various theoretical perspectives have been raised to study SRL. These theories include social learning, Piaget's constructivist, information-processing, and Vygotsky's socio-cultural theories. Zimmerman and Schunk emphasized the various ways in their book by asking authors to look at SRL from different theoretical positions (although an electric mix is evident in most studies) (Paris & Paris, 2001; Zimmerman, 1989a; Zimmerman & Schunk, 2001). For teachers, the theoretical origin of the concepts is less important than their





practical applications. SRL theories have both theoretical and practical foundations, which highlight how can teachers help learners to adjust their learning and behavior by using learning strategies, and which could be directly applied in classrooms (Paris & Paris, 2001).

Self-regulation is a basic concept in Social Cognitive Theory. Since the 1980s, self-regulation has been studied by Dale Schunk, Albert Bandura, Barry Zimmerman, Frank Pajares, and Paul Pintrich (Ergen & Kanadli, 2017; Sakiz, 2014). Numerous studies have focused on how students regulate himself/herself in learning settings, leading to the self-regulated learning conception (Dinsmore et al., 2008; Ergen & Kanadli, 2017). Social Cognitive Theories concentrate on feedback's positive aspects. Factors such as cognitive equilibrium, self-efficacy, and achievement success are the real driving forces behind self-regulation (Bandura, 1989; Nodoushan, 2012).

Based on the Social Cognitive Theory, this study explored the relationship between three important self-regulatory learning strategies, academic procrastination of students, and academic success. The framework developed by Zheng, B. B., & Zhang, Y. N., Schunk and Zimmerman, and Heckhausen and Kuhl were adopted because their model specifically addressed self-regulated learning in academic contexts. Based on the Social-Cognitive Theory, self-regulated learning is a circular, dynamic process with the characteristics of three stages: forethought, performance control (using cognitive strategies such as organization, rehearsal, meta-cognitive monitoring, and elaboration), and self-reflection (Zheng & Zhang, 2020; Barry J Zimmerman, 2000). In line with this theory, Schunk and Zimmerman (Schunk & Zimmerman, 1998) and Zimmerman (2000) developed a staged self-regulation model, including: (Corkin & a) fore-thoughtfulness,



(2) performance and will control, and (3) reflective process. To describe the stages of self-regulated learning, Heckhausen and Kuhl (Heckhausen & Kuhl, 1985) divided it into three categories: pre-action, action, and post-action phases, and the phases of self-regulated learning contain its main components as meta-cognitive knowledge, motivational beliefs, resource management, and cognitive engagement. In detail, which includes 14 self-regulated learning strategies (Schmitz & Wiese, 2006). According to previous work about SRL theories and related models, the theoretical framework of SRL was presented in Figure 1.1.

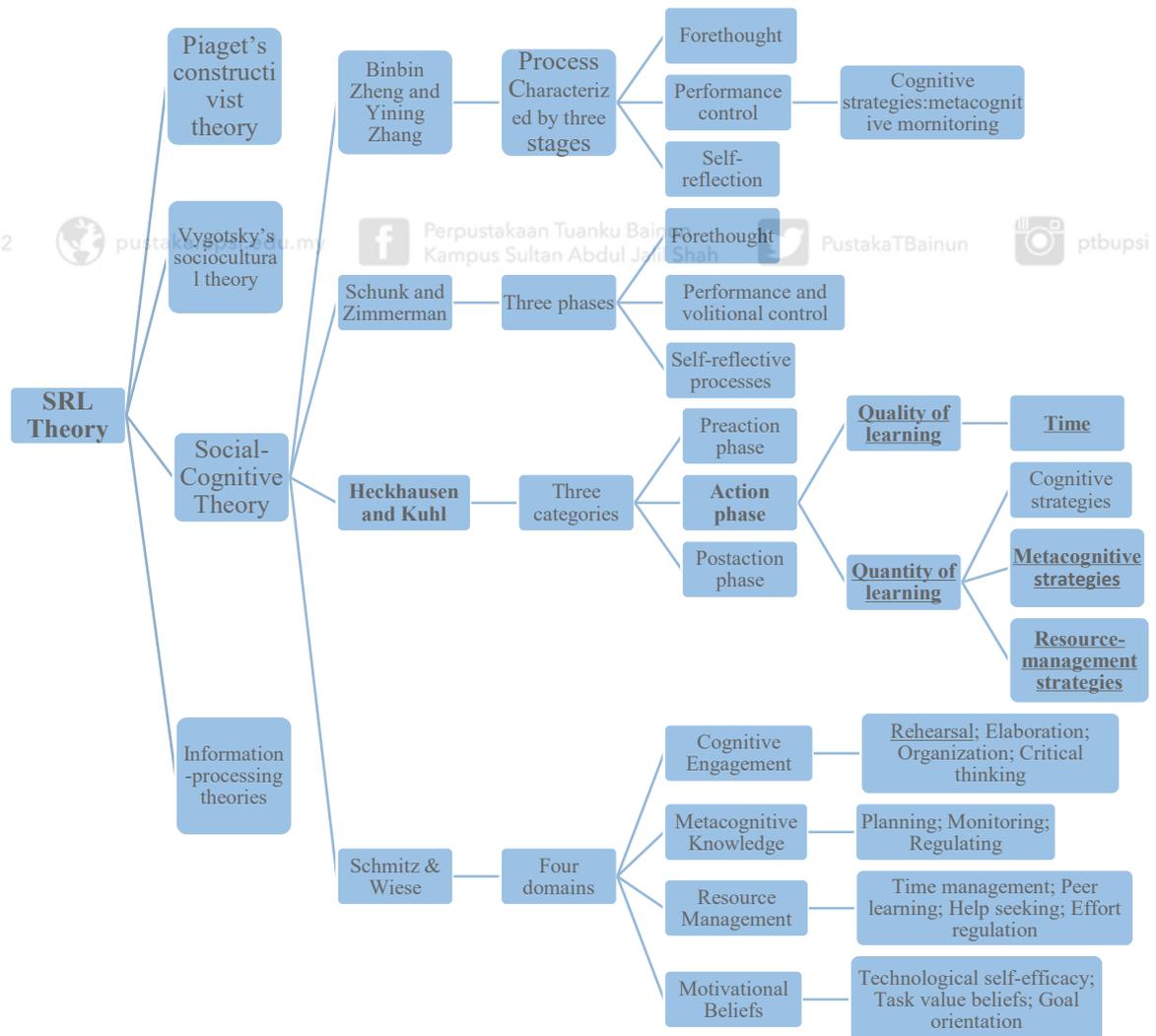


Figure 1.1. The theoretical framework of Self-regulated learning (SRL)



## 1.8 Conceptual Framework of Research

Using interactive ambulatory assessment to foster self-regulated learning in higher education, the study showed that time management, meta-cognitive strategies, and internal resources were positively related to academic success (Loeffler, Bohner, et al., 2019). It was investigated that the most significant SRL strategies were effort regulation, time management, and meta-cognition (J. Broadbent & W.L. Poon, 2015; Richardson et al., 2012).

The interactive ambulatory assessment provides a new way to directly investigate self-regulation and promote it to overcome academic procrastination in their daily learning. Multilevel model analyses showed a decrease in procrastination and an increase in time management (Loeffler, Stumpp, et al., 2019). A study conducted on young secondary education students showed that academic procrastination was associated with effort regulation and meta-cognitive self-regulation negatively (N. Ziegler & M. C. Opdenakker, 2018).

The study explored academic procrastination's mediation effect on the application of students' academic performance, strategies for affecting/cognitive well-being, and motivational regulation, which found that academic procrastination negatively affects the grade point average of students (Grunschel et al., 2016). Procrastination is seen as a barrier to academic success because it reduces the quantity and quality of what students learn (Hen & Goroshit, 2014; Loeffler, Stumpp, et al., 2019; Schraw et al., 2007a). Previous research found that academic procrastination is associated with academic success significantly and negatively (Kandemir, 2014;



Üztemur, 2020). Based on previous research, this study concentrates on the following variables (see Figure 1.2).

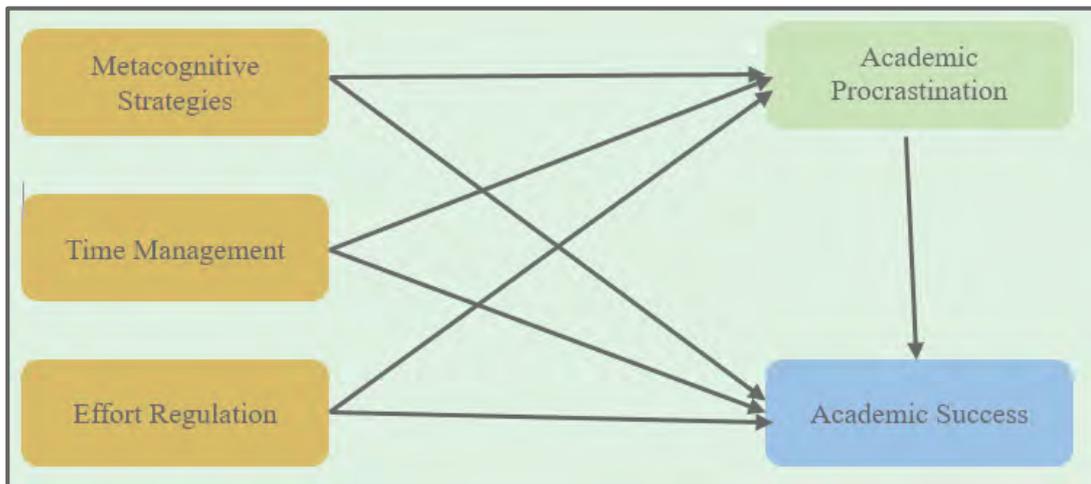


Figure 1.2. The relationship between meta-cognitive strategies, resource management strategies, academic procrastination, and students' academic success

## 1.9 Operational Definition

### 1.9.1 Self-regulated Learning

Self-regulation means self-generated feelings, actions, and thoughts that plan and adjust to achieve personal goals cyclically. Self-regulated students set goals, choose proper strategies to achieve goals, implement strategies, monitor the effectiveness of strategies implementation, and self-reflect to optimize behavior (TAS et al., 2016; Barry J Zimmerman, 2000). In the present study, three sub-strategies of self-regulated learning meta-cognitive strategies, time management, and effort regulation were used as independent variables to predict the intermediary variable and the outcome variable. University teachers should cultivate students' learning strategies in a targeted way,



guide them to effectively use learning strategies, and help them from independent learning abilities, laying a foundation for achieving academic success. These strategies are used to predict the academic success of college English learners. Students' confidence in their learning ability and self-regulation of their learning process are important factors that affect their learning results. Therefore, it is necessary to enhance students' self-efficacy and develop students; self-regulation strategies in teaching.

### 1.9.2 Time Management

Time management is one of the important factors of resource-management strategies (Koch & Kleinmann, 2002; Wolters et al., 2017) which refers to the arrangement, planning, and management of the learners' study time (Daeyeoul Lee et al., 2019; Pintrich, 1991a). Time management states the process of strategy that improves the achievement of important goals and significant success in academic, personal, and professional settings (Claessens et al., 2007; Wolters et al., 2017). Time management stands for the quality of EFL students' learning.

Time management strategy is a key skill, which is a process for students to control and use external factors. It is reflected in whether students can reasonably arrange and actively allocate their study time to achieve an efficient learning effect. Time management of English learning requires reasonable planning of time to carry out teaching activities, which is usually manifested as being able to effectively allocate English study time reasonably despite the heavy workload. Finish study tasks on time. Therefore, the English learning time management strategy in this study can be defined





as students being able to reasonably plan their English learning time, complete their homework tasks on time, and continue their English learning with spare time.

### 1.9.3 Effort Regulation

Effort regulation is another important factor of resource-management strategies (Koch & Kleinmann, 2002; Wolters et al., 2017) and refers to controlling one's attention and effort concerning school-related tasks. (Daeyeoul Lee et al., 2019; Pintrich, 1991a).

Effort regulation refers to the process by which students appropriately manage their behavior to achieve goals (Ruiz-Alfonso et al., 2020; Zimmerman & Kitsantas, 2014).

Effort regulation can be understood as a student's commitment of energy, time, and

work to focus on an activity or a task (Liew et al., 2011; Ruiz-Alfonso et al., 2020), as well as the students' ability to work hard and persevere professionally even if it is a little difficult or not very easy (Pintrich & De Groot, 1990; Ruiz-Alfonso et al., 2020).

The present study explored effort from the perspective of self-regulated learning. EFL learners must control their effort and attention, to achieve their learning goals persistently. It is also important for EFL teachers to instruct and enhance effort regulation on EFL students. The strategy of effort regulation in this study mainly shows that when faced with difficulties, it can achieve emotional stability, self-encouragement, and perseverance. Or daily learning in the face of some boring learning tasks, but also to maintain a serious heart to the task, and can well complete the task as the final goal. Therefore, the English learning effort management strategy refers to that students can take the established learning goals as the direction of progress, in the face of difficult





learning tasks, still can always seriously and hard to learn English, and will stick to this state.

#### 1.9.4 Meta-cognitive self-regulation

Nowadays, people's educational vision has gradually shifted from the classroom to the outside of the classroom. What affects students' learning is not only the teaching of the school but also other factors outside the school. Meta-cognitive strategies are of great help to English students' learning and are closely related to their English scores.

Meta-cognitive self-regulation is used to concentrate, arrange, plan, and evaluate one's learning activity. It is a sort of regulatory measure which are used to learn a foreign language well including making a learning plan, monitoring the learning process, and evaluating the learning results. The meta-cognitive strategies are activities that need to be pre-planning, pre-evaluation, and post-evaluation, and learners can make better progress in their learning by employing those procedures. In this study, meta-cognitive self-regulation was used by undergraduate English learners to make a conscious plan for their learning activities, create a well-situated environment and overcome academic procrastination in the learning process.





### 1.9.5 Academic Success

Academic success is the product of teaching, which means the extent to which institution, students, and educator achieve their educational goals. Academic success means the degree to which students acquire the proficient, skills, aptitudes, and information that teachers will assign or teach (Salvia & Ysseldyke, 2001; Suleman et al., 2019). In the education area, academic success is considered to be one of the most crucial concepts, designed to assess the ultimate goal of individual success and the future productivity of the educational system (Jamali et al., 2013; Suleman et al., 2019).

Promoting the growth of students is the goal of talent training in colleges and universities, and “academic success” is the key to analyzing the learning and development effect of undergraduate English students, which is mainly reflected in academic performance, satisfaction, achievement of educational goals, and achievement after graduation. The evaluation content mainly includes two aspects: one is the learning effect of students during school, and the other is the satisfaction of students’ work and life after graduation. This study mainly evaluates the learning effect of students during school, the term academic success refers to university EFL students who have the self-efficacy to accomplish English tasks and achieve excellent grades in English courses, and who are satisfied and “happy” with the university they are attending.





### 1.9.6 Academic Procrastination

Academic procrastination means deliberate procrastination of learning-related actions, despite the expectation that such procrastination will get worse (Jin et al., 2019; Piers Steel, 2007), which has stimulated the study interest of social scientists over the past few years. Academic procrastination is also a classic example of self-regulation failure, in which students are unable to successfully control their behavior or learning. Based on the previous reports (Jin et al., 2019; Piers Steel, 2007), it is estimated that 75–90% of undergraduates delay in completing their academic tasks (Jin et al., 2019).

The opposite of learning delay is learning, and undergraduate English students in the process of learning, out of various causes a delay time, there may be problems such as delay in handing in homework, unwillingness to learn or unwillingness to learn, slow process in learning, etc., which may lead to the completion of learning tasks on time. After college English learners enter college from high school, their body changes make college students face a more complex environment, they bear more academic pressure, need to complete more learning and learning tasks, and are less constrained by teachers and parents. As a result, undergraduate English learners are prone to loose learning attitudes and delayed learning behavior.

In the present study, academic procrastination has the following implications: for one thing, EFL students fail to regulate their learning strategies, such as effort regulation, time management, and meta-cognitive strategies; on the other, university EFL students delayed or put off their English learning tasks and activities, finally, they can't attain great grades to achieve their academic success.





### 1.10 Study Limitation

The current study has several limitations. First, because only college students were considered in this study, the research results lacked generalization. Second, the data was collected only from four universities in Shaanxi province because of financial problems, so the sample size is just enough for analysis. Third, most of the participants in the present study are female because females take up more proportion than males in EFL learning. However, because there exist gender differences when using learning strategies, the results of this study might be skewed towards female participants (Ruffing et al., 2015). Fourth, the present study only makes a tentative statement, thus, evaluating the use of resource-management strategies, meta-cognitive strategies, academic procrastination, and students' academic success, a longitudinal design was



desirable (at different points in time).

### 1.11 Importance of Research

Previous studies on EFL learning have concentrated on improving the skills of speaking, reading, listening, translating, writing, grammar, and vocabulary which belongs to the area of social science. And these studies prefer to use the theories of second language acquisition and language-related methodology. The current study takes SRL (resource-management strategies and meta-cognitive strategies), academic success, and academic procrastination together as the variables in the context of university EFL learning of students, which enriches the theories of EFL learning from the aspects of strategies and academic outcomes.





This study adds a new dimension to SRL (resource-management strategies and meta-cognitive strategies), academic procrastination, academic success, and EFL learning. In detail, success in self-regulatory learning leads to decreased EFL students' academic procrastination, which finally could increase the achievement of academic success, so the EFL students' language learning ability will be improved.

Educators or teachers instruct students to use these SRL strategies properly, students could better avoid academic procrastination in their studies. The better students use SRL strategies, and the less they procrastinate, the more successful they will be.

For teachers and scholars, a previous meta-analysis study showed that different effects of SRL models have functioned in different educational levels of students.

Hence, teachers and scholars must start using the differential effects of these SRL theories and models to improve SRL skills and student learning (Ernesto Panadero, 2017). An important implication is that educators should observe and work on solving procrastination in students before it develops. Effort regulation, time management, and meta-cognitive strategies adjust to reduce procrastination offer great hope, to achieve this goal, school policymakers and educators should not just concentrate on the fact knowledge transfer, but also they should educate students on meta-cognitive skills, which will promote self-regulatory process, and make time management and effort regulation possible (Dignath et al., 2008; Schraw et al., 2006; N. Ziegler & M.-C. Opendakker, 2018).

For students, the SRL model forms a complete, coherent framework from which research can be conducted, and within which college learners can be cultivated to





become more successful and strategic (Ernesto Panadero, 2017). Self-regulating learners are those who can participate in motivational, cognitive, affecting, and processes of meta-cognitive to enhance the likelihood of achievement of learning goals (Boekaerts, 1999; Borkowski, 1996; Jorge Maldonado-Mahauad et al., 2018; Pintrich, 2004; Zimmerman, 2015). When working on the task, self-regulated learners try to make an effort to improve their learning ways through strategies of meta-cognitive, time management, and effort regulation (Philip H Winne, 2018). Self-regulated learners need to grasp these strategies, which they can apply to different contexts and specific learning situations (De Smul et al., 2018; Kistner et al., 2015). The ability of a student to choose and regulate learning strategies following their learning-situated context is the key to self-regulated learning (Jorge Maldonado-Mahauad et al., 2018; Winne, 2006). However, self-regulatory strategies are not automatically developed by all the students. However, teachers can train students to master it (Boekaerts, 1997; De Smul et al., 2018; Dignath & Büttner, 2008; Zimmerman, 2002). In addition, the teacher's role in promoting and stimulating self-regulated learning is vital because students need a skilled model (De Smul et al., 2018; Ferreira & Simão, 2012). In terms of this aspect, the researchers suggest that self-regulated learning strategies should be thought of as part of teachers' daily teaching strategies (De Smul et al., 2018; Dignath-van Ewijk et al., 2013; Kramarski et al., 2013; Zimmerman, 2002).

## 1.12 Summary

This research is composed of five chapters. These chapters are briefly reviewed as follows:





Chapter 1, provides the research background, and research problem. Moreover, this chapter demonstrates the research objectives, research questions, research hypotheses, theoretical framework, conceptual framework, operational definition, research limitation, and significance of the research.

Chapter 2, reviews the influence of self-regulated learning strategies on the academic success of students who have the problem of academic procrastination. The results showed that motivational regulation strategies have positive indirect effects on students' cognitive well-being and academic performance by the mediation of academic procrastination. Additionally, academic procrastination was correlated with student grade point averages negatively, and decreased procrastination will lead to increased time management. Time management, internal resources, meta-cognitive strategies, and Cognitive (deep processing strategies and rehearsal strategies) were positively correlated with academic success. Furthermore, academic procrastination is associated with effort regulation, self-efficacy, and meta-cognitive self-regulation negatively.

In chapter 3, the research framework is comprehensively described, with resource management strategies and meta-cognitive strategies as exogenous variables, academic procrastination as intermediary variables, and academic success of EFL students as outcome variables. A questionnaire survey and intermediary analysis were applied to investigate the association between variables.

Chapter 4, on account of the results of the questionnaires, carries on the mediation analysis of the variables.





Finally, Chapter 5, presents the conclusion and the contributions of this research.

The areas to be pursued as future works are also recommended.

