

**STUDY EFFORTS, LEARNING STRATEGIES AND TEST  
ANXIETY WHEN STRIVING FOR LANGUAGE  
COMPETENCE:**

**THE ROLE OF UTILITY VALUE, SELF-EFFICACY, AND  
REASONS FOR LEARNING ENGLISH**

A DOCTORAL DISSERTATION

BY

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THE PROGRAM OF CURRICULUM AND INSTRUCTION

İHSAN DOĞRAMACI BILKENT UNIVERSITY

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I dedicate this work to my husband, Tolga Üner and my daughter, İrem Üner and my parents. A special feeling of gratitude to them as they supported me fully in this process.



Study Efforts, Learning Strategies and Test Anxiety  
When Striving for Language Competence:  
The Role of Utility Value, Self-Efficacy, and Reasons for Learning English

The Graduate School of Education

of

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Study Efforts, Learning Strategies and Test Anxiety When Striving for Language

Competence: The Role of Utility Value, Self-Efficacy,

and Reasons for Learning English

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May 2020

I certify that I have read this doctoral dissertation and have found that it is fully adequate, in scope and in quality, as a dissertation for the degree of Doctor of Philosophy in Curriculum and Instruction.

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## ABSTRACT

### STUDY EFFORTS, LEARNING STRATEGIES AND TEST ANXIETY WHEN STRIVING FOR LANGUAGE COMPETENCE: THE ROLE OF UTILITY VALUE, SELF-EFFICACY, AND REASONS FOR LEARNING ENGLISH

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This study investigates the combined role of utility value, expectancy for success, intrinsic reasons and self-worth concerns, in predicting learning strategies and test anxiety. The study examined this potential prediction with 1,009 university students. The students were studying in a language preparatory program of a university. In the qualitative phase of this exploratory sequential mixed methods case study, semi-structured interviews facilitated understanding of students' perception of the motivational variables they believe are influential in their language learning process. Interviews were held with students from three different categories: non-repeaters (i.e., those who never failed), past-repeaters (i.e., those who had experienced failure), and current-repeaters (i.e., those who failed and were repeating the current period of study). Quantitative data were gathered through a survey approach and enabled exploration of the relationship among motivational components and learning strategies. Five hierarchical regression analyses was conducted. The regression analysis was conducted for effort regulation, learning strategies (i.e., rehearsal, critical thinking and metacognitive self-regulation) and test anxiety. The results of the regression analyses showed that, intrinsic reasons positively predicted learning strategies across the three groups of students. Self-worth concerns were found to positively predict test anxiety. The results of the study suggest that intrinsic reasons for have an important role in contexts where there is psychological pressure to be successful.

Key words: value beliefs, expectancy beliefs, reasons for learning, learning strategies, test anxiety.

## ÖZET

### DİL YETERLİĞİNDE ÖĞRENME ÇABALARI, ÖĞRENME STRATEJİLERİ VE SINAV KAYGISI: FAYDA DEĞER, ÖZ-YETERLİK İNANÇLARI, VE İNGİLİZCE ÖĞRENME NEDENLERİNİN ROLÜ

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Bu çalışma, özellikle başarı baskısının yüksek olduğu bağlamlarda, öğrenme stratejilerini ve sınav kaygısını tahmin etmede, başarı için fayda değerinin ve beklentisinin ortak rolünü ve akademik başarı için çabaların nedenlerini araştırmaktadır. Üniversite düzeyinde bir İngilizce dil hazırlık okulunda sınavları geçmek için psikolojik baskı altında olan 1,009 öğrenci bu çalışmaya katılmıştır. Bu çalışma karma yöntemlerden sıralı açıklayıcı desene dayalı bir durum çalışması olarak yapılandırılmıştır. Hazırlık sınıfı öğrencileri hazırlık sınıfında hiç seviye tekrarı yapmamış, geçmişte seviye tekrarı yapmış ve bulundukları seviyeyi tekrarlamakta olanlar olarak üç gruba ayrılmıştır. Çalışmanın nitel aşamasında, yarı yapılandırılmış bireysel görüşmeler kullanılmış ve tematik analiz yolu ile öğrencilerin kendi dil öğrenme sürecinde etkili olduğuna inandıkları motivasyonel değişkenlerin tanımlanmıştır. Nicel veri analizi öğrenciler tarafından bildirilen motivasyon bileşenleri ve öğrenme stratejileri arasındaki ilişkinin araştırılmasını sağlamıştır. Öğrencilerin motivasyonel ve öğrenme stratejisi yapıları kapsamındaki tutumları ve görüşleri anket yöntemi kullanılarak elde edilmiştir. Nicel veriler, çaba düzenlemesi, tekrar etme, eleştirel düşünme ve bilişsel öz-düzenleme ve sınav kaygısı değişkenlerinin her birinin tek bağımlı değişken olarak alındığı beş ayrı hiyerarşik çoklu doğrusal regresyon analizi yapılarak analiz edilmiştir. Her bağımlı değişken için regresyon analizi tüm örneklem ve üç alt örneklem için yinelenmiştir. Analiz sonuçları, öz-yeterlik inançlarının yanında, öğrenme stratejilerini olumlu ve tutarlı bir şekilde tahmin eden içsel sebepler olduğunu göstermiştir. Buna karşılık, regresyon analizleri, öz-değer endişelerinin sınav kaygısını olumlu tahmin ettiğini göstermiştir. Bu ilişkiler, başarısızlık yaşamış ve böylece psikolojik olarak başarılı olmak için bastırılmış öğrenciler arasında bile ortaya çıkmıştır. Akademik çabaların içsel nedenlerinin psikolojik olarak baskı altındaki bağlamlarda bile belirleyici bir rol oynayabileceği sonucuna varılmıştır.

**Anahtar Kelimeler:** fayda değer inançları, beklenti inançları, öğrenme nedenleri, öğrenme stratejileri, sınav kaygısı.

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## TABLE OF CONTENTS

|                                                    |     |
|----------------------------------------------------|-----|
| ABSTRACT.....                                      | iii |
| ÖZET.....                                          | iv  |
| ACKNOWLEDGEMENTS .....                             | v   |
| LIST OF TABLES .....                               | xi  |
| LIST OF FIGURES .....                              | xiv |
| CHAPTER 1: INTRODUCTION .....                      | 1   |
| Introduction .....                                 | 1   |
| Background.....                                    | 4   |
| Problem.....                                       | 12  |
| Purpose .....                                      | 15  |
| Research questions .....                           | 16  |
| Significance .....                                 | 17  |
| Definition of key terms.....                       | 19  |
| CHAPTER 2: REVIEW OF RELATED LITERATURE.....       | 22  |
| Introduction .....                                 | 22  |
| Learning a language .....                          | 22  |
| Self-regulated learning .....                      | 25  |
| The six prominent theoretical perspectives .....   | 26  |
| Self-regulatory processes in the four phases ..... | 31  |
| Forethought and planning phase .....               | 33  |
| Performance monitoring and control phase .....     | 40  |
| Reaction and reflection phase .....                | 45  |

|                                                                          |     |
|--------------------------------------------------------------------------|-----|
| Review of relevant research.....                                         | 51  |
| Summary.....                                                             | 65  |
| CHAPTER 3: METHODOLOGY .....                                             | 69  |
| Introduction .....                                                       | 69  |
| Research design .....                                                    | 70  |
| Context for the study .....                                              | 75  |
| Participants .....                                                       | 78  |
| Instrumentation.....                                                     | 81  |
| Qualitative instrument .....                                             | 82  |
| Quantitative instrument .....                                            | 83  |
| Method of data collection.....                                           | 83  |
| Piloting stage: quantitative and qualitative data collection .....       | 84  |
| Phase one: Qualitative instrument .....                                  | 87  |
| Transition from qualitative to quantitative phase .....                  | 88  |
| Revised research questions .....                                         | 89  |
| Phase two: Quantitative instrument.....                                  | 90  |
| Method of data analysis.....                                             | 95  |
| Qualitative data analysis .....                                          | 95  |
| Quantitative data analysis .....                                         | 98  |
| Summary.....                                                             | 108 |
| CHAPTER 4: RESULTS .....                                                 | 110 |
| Introduction .....                                                       | 110 |
| Qualitative Results.....                                                 | 110 |
| Students' perceptions about the causes of success or failure in learning |     |
| English.....                                                             | 110 |

|                                                                                         |     |
|-----------------------------------------------------------------------------------------|-----|
| Utility value attached to learning English.....                                         | 121 |
| Self-efficacy beliefs as reflected by the students.....                                 | 123 |
| Intrinsic reasons for learning and self-worth concerns.....                             | 123 |
| Self-worth concerns due to psychological pressure to succeed.....                       | 125 |
| Learning strategies as reported by the students.....                                    | 127 |
| Revision to the quantitative research question based on the qualitative<br>results..... | 134 |
| Quantitative results.....                                                               | 135 |
| Descriptive statistics.....                                                             | 135 |
| The research questions and results.....                                                 | 137 |
| Findings of regression analysis for effort regulation.....                              | 137 |
| Findings of regression analysis for rehearsal.....                                      | 141 |
| Findings of regression analysis for critical thinking.....                              | 144 |
| Findings of regression analysis for metacognitive self-regulation.....                  | 147 |
| Findings of regression analysis for test anxiety.....                                   | 150 |
| Summary.....                                                                            | 154 |
| CHAPTER 5: DISCUSSION.....                                                              | 156 |
| Introduction.....                                                                       | 156 |
| Overview of the study.....                                                              | 156 |
| Major findings.....                                                                     | 157 |
| The four phases of self-regulatory process.....                                         | 158 |
| Utility value and self-efficacy beliefs.....                                            | 160 |
| Intrinsic reasons and self-worth concerns.....                                          | 169 |
| Implications for practice.....                                                          | 175 |
| Implications for further research.....                                                  | 183 |

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| Limitations.....                                                                                   | 186 |
| Conclusion.....                                                                                    | 189 |
| Reflections.....                                                                                   | 191 |
| REFERENCES.....                                                                                    | 193 |
| APPENDICES .....                                                                                   | 242 |
| APPENDIX A: Motivated Strategies for Learning Questionnaire<br>(MSLQ) used in the Pilot Study..... | 242 |
| APPENDIX B: Global Scale Common Reference Level.....                                               | 247 |
| APPENDIX C: Semi-structured Interview Protocol.....                                                | 248 |
| APPENDIX D: MSLQ Subscales and Related Items.....                                                  | 250 |
| APPENDIX E: MSLQ Version used in this Study.....                                                   | 253 |
| APPENDIX F: Informed Consent Form.....                                                             | 257 |
| APPENDIX G: Transcripts of the Interviews with Non-repeating<br>Students.....                      | 258 |
| APPENDIX H: Transcripts of the Interviews with Past-repeating<br>Students.....                     | 264 |
| APPENDIX I: Transcripts of the Interviews with Current-repeating<br>Students.....                  | 271 |
| APPENDIX J: Listwise Deletion for Effort Regulation .....                                          | 277 |
| APPENDIX K: Listwise Deletion for Rehearsal.....                                                   | 278 |
| APPENDIX L: Listwise Deletion for Critical Thinking.....                                           | 279 |
| APPENDIX M: Listwise Deletion for Meta-cognitive self-regulation.....                              | 280 |
| APPENDIX N: Listwise Deletion for Test Anxiety.....                                                | 281 |
| APPENDIX O: Q-Q Plot for Independent Variables.....                                                | 282 |
| APPENDIX P: Q-Q Plot for Dependent Variables.....                                                  | 283 |

|                                                                                                      |     |
|------------------------------------------------------------------------------------------------------|-----|
| APPENDIX Q: Bivariate and Descriptive Statistics for Non-repeaters.....                              | 284 |
| APPENDIX R: Bivariate and Descriptive Statistics for Past-repeaters.....                             | 285 |
| APPENDIX S: Bivariate and Descriptive Statistics for Current-repeaters.....                          | 286 |
| APPENDIX T: The Full List of the Words Included under Each<br>Category for Non-repeat Group.....     | 287 |
| APPENDIX U: The Full List of the Words Included under Each<br>Category for Past-repeat Group.....    | 290 |
| APPENDIX V: The Full List of the Words Included under Each<br>Category for Current-repeat Group..... | 293 |
| APPENDIX W: Interaction Terms for Effort Regulation.....                                             | 296 |
| APPENDIX X: Interaction Terms for Rehearsal.....                                                     | 297 |
| APPENDIX Y: Interaction Terms for Critical Thinking.....                                             | 298 |
| APPENDIX Z: Interaction Terms for Meta-cognitive self-regulation.....                                | 299 |
| APPENDIX AA: Interaction Terms for Test Anxiety.....                                                 | 300 |
| VITA.....                                                                                            | 301 |

## LIST OF TABLES

| Table                                                                                                                            | Page |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| 1 Four-phases of self-regulated learning.....                                                                                    | 50   |
| 2 Characteristics of the participants in the semi-structured<br>interview.....                                                   | 79   |
| 3 Gender and status of students within the preparatory program.....                                                              | 80   |
| 4 Reflections by the reviewers and the students on the interview<br>questions and related actions.....                           | 85   |
| 5 Pilot study feedback and actions taken.....                                                                                    | 87   |
| 6 Categories and codes.....                                                                                                      | 98   |
| 7a Listwise deletion and imputed scores: Hierarchical regression for<br>variables predicting effort regulation.....              | 277  |
| 7b Listwise deletion and imputed scores: Hierarchical regression for<br>variables predicting rehearsal.....                      | 278  |
| 7c Listwise deletion and imputed scores: Hierarchical regression for<br>variables predicting critical thinking.....              | 279  |
| 7d Listwise deletion and imputed scores: Hierarchical regression for<br>variables predicting meta-cognitive self-regulation..... | 280  |
| 7e Listwise deletion and imputed scores: Hierarchical regression for<br>variables predicting test anxiety.....                   | 281  |
| 8 Means, standard deviations and bivariate correlations .....                                                                    | 105  |

|     |                                                                                                                                         |     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------|-----|
| 8a  | Means, standard deviations and bivariate correlations for the non-repeat group.....                                                     | 284 |
| 8b  | Means, standard deviations and bivariate correlations for the past-repeat group.....                                                    | 285 |
| 8c  | Means, standard deviations and bivariate correlations for the current-repeat group.....                                                 | 286 |
| 9   | Word counts and percentages for each LIWC category results by group.....                                                                | 111 |
| 10  | Statements made by students implying utility value.....                                                                                 | 121 |
| 11  | Statements made by students implying self-efficacy beliefs.....                                                                         | 123 |
| 12  | Statements made by students implying intrinsic reasons.....                                                                             | 124 |
| 13  | Statements made students implying self-worth concerns.....                                                                              | 125 |
| 14  | Learning strategy use as reflected by non-repeating group.....                                                                          | 128 |
| 15  | Learning strategy use as reflected by past-repeating group.....                                                                         | 130 |
| 16  | Learning strategy use as reflected by current-repeating group.....                                                                      | 133 |
| 17  | Hierarchical regression for variables predicting effort regulation for the full sample, and the three subgroups.....                    | 140 |
| 17a | Hierarchical regression for effort regulation for the full sample, and the three subgroups with the inclusion of interaction terms..... | 296 |
| 18  | Hierarchical regression for variables predicting rehearsal for the full sample, and the three subgroups.....                            | 143 |
| 18a | Hierarchical regression for rehearsal for the full sample, and the three subgroups with the inclusion of interaction terms.....         | 297 |

|     |                                                                                                                                                      |     |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 19  | Hierarchical Regression for variables predicting critical thinking for the full sample, and the three subgroups.....                                 | 146 |
| 19a | Hierarchical regression for critical thinking for the full sample, and the three subgroups with the inclusion of interaction terms.....              | 298 |
| 20  | Hierarchical regression for variables predicting meta-cognitive self-regulation for the sample, and the three subgroups.....                         | 149 |
| 20a | Hierarchical regression for meta-cognitive self-regulation for the full sample, and the three subgroups with the inclusion of interaction terms..... | 299 |
| 21  | Hierarchical regression for variables predicting test anxiety for the sample, and the three subgroups.....                                           | 153 |
| 21a | Hierarchical regression for test anxiety for the full sample, and the three subgroups with the inclusion of interaction terms.....                   | 300 |



LIST OF FIGURES

| Figure |                               | Page |
|--------|-------------------------------|------|
| 1      | Procedures of the study ..... | 74   |



## **CHAPTER 1: INTRODUCTION**

### **Introduction**

Language learning theories posit that learning another language is a complex cognitive skill and that cognitive processes along with affective variables help understand how individual students acquire another language (Ellis, 2004; Skehan, 1984). Learner motivation (Dörnyei, 1994; Gardner, 1985) and employment of effective learning strategies (Dörnyei, 2002; Horwitz, 1988; Skehan, 1989; Tremblay & Gardner, 1995) are among the commonly discussed critical determinants of learning a foreign language. Motivation and utilization of effective learning strategies is important in academic success (Credé & Phillips, 2011). Thus, it is important to identify the effective learning strategies and the motivational variables which could explain why some students use more effective strategies than others.

Around the world, there are universities that offer courses in a language that is different from the official language of the country in which the campus resides. Within the Turkish context, the students study at universities in which medium of instruction is English and the country's dominant language is Turkish. These universities want proof that the students are proficient users of English and that they can meet the demands of their departmental studies. Consequently, these universities will only admit students to their respective departments on the condition that they successfully pass an English proficiency exam. For those students who fail to pass

the proficiency exam, the institutions offer a preparatory program where students can take intensive language classes, focusing on academic skills, to improve their proficiency. Based on the English proficiency exam results, the students are placed in levels in the preparatory program. These students may study up to two years in this intensive English preparatory program to meet the language requirement to be admitted to their undergraduate program.

The current study was conducted in the preparatory program of one of the universities in Turkey. In this intensive preparatory program, the levels of English language proficiency are defined with reference to the Common European Framework of Reference (CEFR; Council of Europe, 2001) as A1, A2, B1, B2, C1 and C2 (Council of Europe, n.d.). Upon the completion of the preparatory program, the students are expected to be B2, a level where learners have reached fluency and accuracy but need to solidify it to successfully complete their studies within their faculties. Students who start at the A1 level (i.e., the lowest level) expecting to reach the B2 level (i.e., higher level) at the end of the academic year need to work hard towards improving his/her language skills. The students have around ten months (i.e., an academic year) to successfully complete their studies within the intensive program. If they fail one more time, they are given another academic year to complete their studies. The British Council report states that starting at a low level and reaching proficiency in one academic year is demanding (West, Güven, Parry, Ergenekon, Aşık, Aydın & Başıhoş, 2015). As such, reaching proficiency requires effort, motivation and the use of effective learning strategies.

Students trying to master a foreign language need to be autonomous learners who regulate their own learning if they are to successfully handle the pressure of

becoming proficient within one and at most two academic years. Such regulation requires the use of specific strategies for the task, including effort, monitoring progress and adjusting strategies. In doing so, the students should maintain confidence in their ability to succeed (Pintrich & Linnenbrink, 2000; Schunk & Zimmerman, 1997) and overcome learning anxiety.

Student motivation and its relation to the utilization of learning strategies has been investigated mainly from the behaviourist theory perspective (Skinner, 1957), social-cognitive perspective (Bandura, 1986), expectancy-value theory (Eccles & Wigfield, 2002) and self-determination theory (Ryan & Deci, 2017). In the current study, student motivation and its relation to learning strategies is conceptualized from the framework of social cognitive model of self-regulated learning (Pintrich, 2000) in light of two major theories: expectancy-value theory (Eccles & Wigfield, 2002) and self-determination theory (Ryan & Deci, 2017). Accordingly, student motivation variables examined in this study are student self-efficacy beliefs, utility value (i.e. usefulness of task), intrinsic reasons, and self-worth concerns. The learning strategies included effort regulation, surface-level learning strategies (i.e., rehearsal), deep-level learning strategies (i.e., critical thinking and meta-cognitive self-regulation). Test anxiety as an affective factor was also included.

The current study aims to increase understanding of the combined relations of these motivational variables to learning strategies in learning English language within the Turkish university preparatory program context. Such investigation may provide significant information on which motivational variables relate to which learning strategies in contexts where there is pressure to succeed.

## **Background**

Earlier studies on learning a foreign language focused on the relationship among language learning success and a number of factors. These factors include an individual's personality (Covington, 1992; Guiora, 1972); motivation (Carrió-Pastor & Mestre, 2014; Csizér & Dörnyei, 2005; Gardner, 1985; Ghazvini & Khajepour, 2011) attitude and learning styles (Dörnyei, 2001; Gardner, 1988), learning strategies (Crookes & Schmidt, 1991; Jurkovic, 2010; Oxford 1996), age (Birdsong, 1999), socio-economic background (Collier, 1989) and makeup of the learning environment (Crookes & Schmidt, 1991; Ellis, 1994; Oxford, 1996). Among these, one of the key processes that has been identified as a focus of the current study is the use of language learning strategies in learning English as foreign language (Ellis, 1997; McLaughlin, 1987). Another important factor that has been the focus of attention in foreign language learning and educational psychology literature and thus this study, is motivation (Cheng & Dörnyei, 2007; Dörnyei & Csizér, 2002; Guilloteaux & Dörnyei, 2008; Skehan, 1989, 1991; Yang & Kim, 2011). While it is necessary to understand motivation of the language learners and their use of learning strategies, an important direction in research is the relationship between them (Ehrman & Oxford, 1989; Oxford & Crookall, 1989; Wang, 2013). Thus, this study investigates the relationships among motivational variables and language learning strategies.

In order to set the background for this study, an understanding of the shift that teaching has gone through in foreign language education is important. In the 1930s, theories on motivation posited that individuals respond to reinforcement or punishment. The behaviour could be repeated through reinforcements. On the contrary, the presence of a punishment decreased the repetition or occurrence of the

same behaviour. In these studies, the behaviourist view to motivation focused on control of the behaviour (Greeno, Collins, & Resnick, 1996). In other words, it was the reward system which was seen to motivate individuals to show the desired behaviour (Williams & Bruden, 1999). The behaviourist theory viewed the language learning process as habit formation (Skinner, 1957), with “frequent reinforcement of a stimulus-response sequence.” (Hutchinson & Waters, 1987, p.40). Within this habit formation process, a learner could encounter either positive or negative reinforcement (Skinner, 1957). Thus, in the language classroom, behaviourist tradition would emphasize rote-learning and practice of grammatical patterns and vocabulary. Accordingly, in a language classroom with a teacher holding a behaviouristic view to learning, it is possible to see that a student is rewarded when his or her answer to the question posed is correct. This student may in fact feel more confident and motivated. On the other hand, in the same classroom, if a student provides a wrong answer, the response s/he gets from the teacher may cause embarrassment and even withdrawal from further tasks.

Such reinforcement system was criticized by some psychologists who believed in the importance of cognition in learning. Although these psychologists were trained within the behaviourist tradition, they saw that cognition had a mediating effect on reinforcement. They recognized that individuals have beliefs regarding their abilities and competence levels for completing a task and assess whether it is worthwhile to engage in a task before they even start it (Brophy, 1999). Thus, by the 1970s, the importance of cognition came to the forefront. The emphasis shifted away from the role of reinforcers and punishers to the role of mental activity in constructing knowledge. Thus, the cognitive perspective began to replace behaviourism (Graham

& Weiner, 1996). This cognitive revolution perceived motivation as “a built-in unconscious striving towards more complex and differentiated development of the individual’s mental structures” (Oxford & Shearin, 1994, p. 23). Such a shift to cognitivism brought with it the important role of the individual in his or her behaviour (Weiner, 1985).

In 1986, the Social Cognitive Theory (SCT) developed by Albert Bandura brought with it a paradigm shift. With this paradigm shift from the role of the learner as a passive one to an active, self-regulated one, research in the field of education concentrated on the role of self-regulatory processes (Boekaerts, 1999; Boekaerts & Corno, 2005; Zimmerman, 2002). According to SCT, the learner needed to be engaged in “the self-directive process by which [she or he] transforms [the] mental abilities into academic skills” (Zimmerman, 2002, p.65). Thus, within a language classroom, in which the teacher holds social cognitivist view, learners would be encouraged to “approach educational tasks with confidence, diligence and resourcefulness” (Zimmerman, 1990, p. 4).

From the SCT perspective, the human mind actively constructs meaning through interaction of cognitions, environmental factors, and behaviour (Bandura, 1986). Accordingly, language learning is believed to be a transformation of linguistic knowledge into linguistic performance through the complex process of rule extraction, learning and automatization (Saville-Troike, 2006). The information flows as a result of interplay between declarative and procedural knowledge. While the former involves the storage of information in the form of facts, the latter refers to production of rules. In the declarative stage of language acquisition, the learner

consciously receives information by means of instruction. Through rehearsal and interpretation in the short term memory, the learner generates “primitive rules.” During this stage, a learner is involved in a trial-and-error exploration whereby the existing rules in the declarative memory are applied to new information (Anderson, 1982). A learner at a beginner level in the language learning process with limited declarative knowledge in the second language often resorts to their native language for linguistic forms and rules, namely vocabulary, grammatical structures and discourse patterns. Anderson (1982) proposes that the next stage is the knowledge compilation stage where there is a “gradual process by which the knowledge is converted from declarative to procedural form” (p.370). At this stage, the learner speeds up the processing and is able to complete the task with a single trial. In the final stage, the procedural stage, the learner becomes more efficient and automatically performs the particular task. Such cognitive involvement in the process enables the learner to a state of internal, self-regulation. Help is received from environmental sources such as teachers and peers. As a result, the behaviours, in the form of attitudes and strategies, allow students to self-motivate and self-regulate cognition to achieve their goals. In short, a self-regulated learner can work towards integration of motivational beliefs and cognitive and metacognitive processing for successful language learning (Mills, Parajes, & Herron, 2007; Schunk & Zimmerman, 1997).

Models of self-regulated learning view cognitive and metacognitive strategies as well as motivational constructs as important in helping learners with regulation of their learning (Pintrich & De Groot, 1990; VanderStoep, Pintrich, & Fagerlin, 1996).

Motivational components include learners’ value beliefs, self-efficacy beliefs and



goal orientations. Cognitive components include both content knowledge and learning strategies (e.g., rehearsal, elaboration, organization and critical thinking) and metacognitive strategies (e.g., planning, monitoring and regulation) (Garcia & Pintrich, 1994). Self-regulatory activities also include regulation of task and effort (Wolters, Pintrich, & Karabenick, 2003).

In accordance with SCT, the learner is an active mediator of instructional input. The learners should plan, organize, self-monitor and evaluate as necessary. They should see themselves as competent and autonomous and approach tasks with confidence as “self-regulated” learners (Zimmerman, 1989). Such regulation is a multi-faceted process in which the learner integrates expectancy-value beliefs with other processes such as learning strategies and test anxiety to help them manage and regulate their own behaviours (Cleary, 2006).

- Task value refers to students’ evaluations of a task, with respect to its importance, interest, and usefulness (Eccles & Wigfield, 2002; Wigfield, 1994).
- Importance, also referred to as attainment value is students’ perception of the importance for doing well on the task as the subject matter is important (Eccles, Adler, Futterman, Goff, Kaczala, Meece, & Midgley, 1983).
- Interest refers to the learners’ desire to learn the content area, with usefulness or utility value reflecting students’ beliefs that a course, subject matter, or an exercise drill can be used as a means to attain a certain end goal.
- Utility value is defined as one’s judgments of how usefulness and instrumental the task is for the future (Eccles et al., 1983).

- Usefulness refers to students' belief that the course will be useful for them to deal with the demands of their immediate studies, in the studies in their department or their career and life after graduation.

The expectancy-value theory is an important framework for explaining learners' choice, persistence, and performance based on their expectations and values (Eccles & Wigfield, 2002). Accordingly, the learner will first consider two questions before engagement in an activity. The first question is "Can I make it?" which reflects learner's expectancies for success for a given task and the second is "How much will this task be useful for me?" which reflects learner's evaluation of the task (Eccles, Wigfield, & Schiefele, 1998). The answer to the latter question suggests that the learner assesses both the importance and the utility value of the task (Eccles & Wigfield, 2002; Pintrich & De Groot, 1990; Wigfield, 1994). For instance, a university student, studying in the preparatory program and who aspires to graduate and to successfully carry out a career in international business, will most likely consider studying English as a means to achieve his or her goal. For that student, studying English at the preparatory program has an apparent utility value for a possible future job. At a more micro, classroom level, that student is more likely to invest time and effort on assignments and tasks and maintain effort to achieve set goals.

According to expectancy-value framework, utility value refers to usefulness of a task for some future purpose (Eccles & Wigfield, 2002). Research has shown that while attachment of such high utility value to departmental studies and career thereafter fosters intrinsic motivation which in turn leads to deeper cognitive engagement

(Eccles et al., 1983; Pintrich & Schrauben, 1992), low utility value will result in lack of regulation of learning activities (De Groot, 2002). Research has shown that both value beliefs and efficacy beliefs can help learners stay motivated and apply learning strategies (Greene & Miller, 1996; Locke & Latham, 1990). Self-efficacy beliefs refer to the belief one has in their capabilities to take action to reach or attain their goals (Bandura, 1997). Such beliefs have also been found to positively relate to greater effort regulation and persistence in tasks (Multon, Brown, & Lent, 1991; Parajes & Schunk, 2001; Pintrich & De Groot, 1990; Rothman, Baldwin, & Hertel, 2004; Schunk, 1991). Bandura (1997) theorized that such beliefs help determine the choices made, the efforts put forth and the form of perseverance displayed by an individual when challenged. Students who possess low self-efficacy perceive difficult tasks as a threat to themselves and focus on their weaknesses, hindering them from successful completion of the task. In contrast, those students with high self-efficacy believe in the fact that they can do the task. This feeling of strong sense of achievement helps them approach difficult tasks and “sustain their efforts in the face of failure” (Bandura, 1993, p. 144).

In addition to values attached to the learning process and the efficacy beliefs, students may differ with reference to the reasons they have for engaging in tasks, with motivation being either intrinsic or extrinsic. Intrinsic motivation assumes that individuals have an innate curiosity and will do something because it is inherently interesting (Deci & Ryan, 1985). Intrinsically motivated learners engage in the learning process because they think it is enjoyable and more importantly interesting. Research focusing on intrinsic motivation revealed that students who possess such motivation have high interest in tasks, view the tasks as important, expend effort,

persist and accomplish a task successfully (Elliot & Church, 1997; Oxford & Shearin 1994; Noels, 2001; Pintrich, 2000). In addition to the value these learners attach to the tasks, those students who have high self-efficacy report intrinsic interest in tasks (Elliot & Harackiewicz, 1996; Walters, 2006).

Extrinsically motivated learners perform tasks “to receive some extrinsic reward such as getting good grades, being praised by the teacher or to avoid punishment” (Dörnyei 1994, p. 275). The extrinsically motivated learner will put the necessary effort into the task, perform an activity out of fear of failure and impress their friends or family with his or her success (Noels, Clement, & Pelletier, 2003), that is for “ego-involved goals” (Nicholls, 1984). There is research to support the relationship between self-worth concerns and low levels of self-efficacy beliefs as well as frequent use of surface level learning strategies (Ames, 1992; Church, Elliot, & Gable, 2001; Elliot & Church, 1997).

Within the the framework of self-regulated learning, self-regulating students use learning strategies such as rehearsal, elaboration, organization and critical thinking, metacognitive self-regulation and effort regulation (Pintrich, 2004). The choice of strategy specific by the students to the task may be determined by the value attached to the specific academic contexts and tasks, expectancy beliefs, intrinsic and extrinsic reasons. It is important to thoroughly understand the combined relationship of motivational dispositions and deployed learning strategies and how these affect learner success in learning English.

### **Problem**

Imagine a group of students who are settled down in their new classroom waiting for the instructional period to begin. These students are studying in the preparatory program of a university in which the medium of instruction is English. They are anxious as they need to complete their studies within the two academic years. Some are progressing from one level to another, mastering English and are getting ready to show their proficiency. However, there are others who cannot progress through the levels. For those who have progressed to the next level, what they are about to study is new. For those who failed at the level they are studying, it will be a repetition of the level they previously studied. In other words, while the former was able to successfully progress to the next level, the latter experienced a failure. Did they fail because they believed failure was an option? Perhaps, they did not. In fact, they probably think it is not at all an option given the pressure of completing their studies in two academic year or otherwise being dismissed.

The image depicted above is a case from a preparatory program classroom where students study towards proficiency to speak and write in English. In Turkey, when student reach the tertiary level, if they choose to pursue their education in an English-medium university, they need to prove their language proficiency. Some students can attain the desired level of language proficiency when they reach university because of their previous language education. Other students, however, may need further work that focuses on essential language skills (reading, writing, listening and speaking) and language systems (grammar and vocabulary) development. To this end, within the Turkish context, English language courses are offered at preparatory programs of universities. The aim of instruction in these preparatory programs is to

help students improve their language skills and systems and prove their proficiency. For students attending these universities and working towards proficiency, learning English may put students under additional stress given that it becomes a vital component of their academic success. As such, for these students becoming qualified in English seems less a matter of enjoyment and more a matter of necessity – a prerequisite to get admission to study in their respective departments at the university.

In Turkey, upon their entry to an English medium university, students who cannot prove their proficiency in English, enter a preparatory year. This year is crucial as those students who prove their proficiency in English can be fully admitted to their respective departments. Such proficiency can be proved through in-house or international English language exemption tests. To prepare for these exams, these students attend intensive, and English-language courses. For these undergraduate students, these courses take place in their first year and are highly demanding. The psychological pressure comes into play in cases when students experience failure. Those students who fail the exam repeat the same level and take the level exam again. There is, however, a limit to the repetition to the level and re-take of the exams. That is, if they cannot pass at a certain stage, these students may be dismissed from the university.

For teachers and educational-policy makers, it is sometimes difficult to pin-point the reasons why some students may struggle to improve their language proficiency. Educational researchers have investigated the reasons why some learners differ from others in this complex learning progress. Motivational factors have been investigated

extensively in research in relation to academic achievement (Broussard & Garrison, 2004; Ryan, Connell, & Plant, 1990; Ryan & Deci, 2000; Masgoret & Gardner, 2003). While all motivational beliefs are important, focusing on certain motivation beliefs, as reflected by the students and their relationship to learning strategies can increase an understanding of the factors influencing students' language learning progress. In line with previous research, it seems plausible to believe that a successful student would be more engaged in the learning process because they do not only perceive the tasks as important but also they believe in their ability to perform it. However, this would underestimate the motivation as well as strategies put into the learning process by students who are struggling in their studies. These struggling students, are unfortunately, viewed as not having the motivation and the appropriate learning strategies that the successful students have (Green & Oxford, 1995; Wen & Johnson, 1997). In fact, these students may be valuing the tasks, believing in their abilities to be successful, both intrinsically and extrinsically motivated and expending effort and making use of certain learning strategies. When these students experience failure although they have put forward great effort, their beliefs about their efficacy may be undermined, resulting in attribution of their failure to lack of ability (Weiner, 1985). Thus, it is important for teachers, despite students' previous performance (even if it is in the form of failure), to foster the existing positive beliefs about capabilities in accomplishing a task, help them stay motivated and encourage them to maintain the value they attach to the tasks and employ appropriate learning strategies.

Research has shown that motivation and effective learning strategies result in academic success. However, rather than investigating motivation and effective

learning strategies separately, it is important to do a more comprehensive research on the combined relationship of a variety of motivational variables with learning strategies. Thus, the aim of this research is to investigate the role of motivational constructs such as value, expectancy beliefs as well as students' underlying reasons for learning (Deci & Ryan, 2000) and their exhibition of learning strategies (i.e, surface and deep-level) within the context of learning English. It is also important to investigate why students who may hold the same motivational beliefs may differ in surface-level and deep-level learning strategy use in learning English. More precisely, there are students who progress without failure, those who may experience past failure and those who might still be experiencing failure. These students are stressed because they fear the exams. It is, therefore, important to examine the patterns of associations among motivational constructs and learning strategies in a sample of students in the preparatory program.

### **Purpose**

In this context where academic success is important to be able to progress to departmental studies, identification of the motivational constructs that contribute to learning English and the strategies utilized for this purpose is important. Within the context of this study, for all students, regardless their achievement history, grades serve as an evaluative tool with a direct consequence. Such focus on grades may encourage the students to focus on performing well rather than on mastering the skills.

Through a close examination of how students progressed within the preparatory program, it was possible to create three categories into which students can be



grouped. There were those who never repeated and therefore were classified as non-repeaters. Non-repeater group include those students who successfully progressed in their studies and experienced no failure in any of the levels they studied. There were also those who repeated a level in the past but were no longer repeating the level. These students were classified as past-repeaters. The past repeaters consist of students who had failed in one or more of the past periods of study (either one or multiple times) and thus they had had to repeat that level based on rules and regulations. There were also those who were currently repeating the level and these were classified as current-repeaters. The current repeaters include student who failed and therefore were repeating the current period of study at the time of data collection. The purpose of this exploratory sequential mixed methods case study is to investigate the motivational constructs and learning strategies utilized by these three distinct groups students studying in the preparatory program of the university. The qualitative phase of the study uses semi-structured interviews to understand the students' reflection on the motivational variables that they believe are influential in their learning process and the learning strategies that they use. Along with the qualitative phase of the study, the quantitative phase aims to examine whether the pattern of associations among motivational constructs and learning strategies would be the same across group of students with different past achievement histories in prior exams.

### **Research questions**

This study will address the following questions:

1. How do students who succeed or fail a level in a preparatory program perceive themselves as language learners?

- a. Which specific aspects of the motivational components do students report as being influential in their language learning experience?
  - b. What specific reasons are given by students to explain their perceived success and failure in learning English?
  - c. Which specific learning strategies do students report using in their language learning experience?
2. To what extent do reported motivational components as reflected by preparatory program students relate to their reported learning strategy use and affective factors?
  - a. How do these relations differ across students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?
3. To what extent do motivational components as reflected by preparatory program students relate to their reported learning strategy use and affective factors in the presence of reported reasons for learning?
  - a. How do these relations differ across students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?

### **Significance**

The present study is considered important as it depicts the combined relationship among motivational constructs and learning strategies which are closely connected to language learning and success in language learning. Gaining a better understanding of English language learner motivations, reasons and strategies, can guide future research in educational settings. Such an understanding can make the language

teaching programs more effective. Effective programs will produce better English speakers who are efficacious. Better English speakers can then succeed in their academic studies at university and in life after university.

The results of the present study are expected to provide information on three different group of students, namely, non-repeat, past-repeat and current-repeat groups, with first group referring to high-achieving students and latter two, referring to slowly progressing students at university level preparatory program. Investigating the patterns of associations among groups and whether these would remain similar across groups in a context where there is psychological pressure to be successful and avoid failure is expected to provide useful information for teachers, curriculum and assessment developers. These stakeholders can gain insight into what should be emphasized in the classroom in relation to the findings of this study. The results can also guide teachers in understanding of the combined relationship of motivation and learning strategies in learner progress in language learning. Additionally, the results can widen teachers' knowledge of how to prepare level appropriate activities, explain the utility behind activities to their students and encourage their students to expend effort and make use of various learning strategies.

This study utilized exploratory sequential mixed methods case study research design. In order to investigate the relationship among motivation and learning strategies in language learning, both quantitative and qualitative approaches were used in combination. By adopting an exploratory sequential mixed methods design, researchers in the field of language education get a better understanding of the phenomena and research problems (Creswell & Plano Clark, 2007). While the

qualitative phase can be used to promote understanding of the students' perspectives regarding their language learning experience, the quantitative phase can provide in depth understanding of the qualitative findings. It is hoped that a study carried out with this design would help enhance the future research understanding of motivational factors and learning strategies that contribute to successful learning of a language.

In summary, the study aims to contribute to the literature in general and Turkey in specific by investigating and comparing the factors that impact on language learning progress at tertiary level, preparatory program context.

### **Definition of key terms**

The following definitions of variables and terms are given below to clarify the meanings.

Cognitive strategies: These strategies include the students' use of surface (i.e. basic level strategies) and deep level strategies (i.e. complex strategies) for processing information from texts (Pintrich, 1989). One of the surface level strategies is rehearsal. Rehearsal is considered a surface level strategy that helps students store information. It includes naming, repeating, recalling and reciting information (Weinstein & Mayer, 1986). This strategy allows the learners to maintain information. Critical thinking is considered a deep level learning strategy, involving the application of previous learned information to new situations (Pintrich, Smith, Garcia, & McKeachie, 1993).

Effort regulation: Effort regulation reflects a commitment and willingness to try hard in the face of difficulties and distractions (Pintrich, 1989). It signifies both goal commitment and regulation of the use of learning strategies.

Expectancy beliefs: These beliefs refer to the individual's evaluation of their competence and abilities (Eccles et al., 1983). Self-efficacy, as one of the important constructs, involves one's beliefs in their ability to perform a task effectively and at a required level (Bandura, 1986; 1977).

Metacognitive self-regulation: Metacognition refers to "conscious control of one's own cognitive actions" (Brown, 1980) and thus involves initiating, monitoring and directing own learning. Such self-regulation involves setting and pursuing goals, monitoring progress, planning how to approach a task and evaluating the way of thinking and acting (Pintrich, Smith, Garcia, & McKeachie, 1993).

Reasons for learning:

- Intrinsic reasons refer to autonomous and self-determined behavior, undertaken out of own interest and challenge seeking (Ryan & Deci, 2000)
- Self-worth concerns refers to "achievement that largely [refers] to attempts to aggrandize and protect self-perception of ability" (Covington & Roberts, 1995, p. 161). For those students who have self-worth concerns, the control is largely shaped by significant others rather than they themselves.

Value beliefs: According to Eccles et al. (1983), the value construct is made up of separate components: attainment, interest, cost and utility value. Utility value is of interest to this study. While attainment value refers to the importance placed on doing a task well, interest value refers to one's joy in being engaged in a task.

Additionally, Eccles et al. (1983) refers to cost value as what needs to be given up to

participate in an activity. Furthermore, utility value refers to the usefulness of an activity for a person wishing to reach some future goals.



## **CHAPTER 2: REVIEW OF RELATED LITERATURE**

### **Introduction**

This chapter sets up the theoretical framework within which the current dissertation was conducted by defining the role of motivation and learning strategies and their combined relationship in language learning. The chapter proceeds with research conducted concerning traditional and contemporary perspectives on the role of motivation and learning strategies in language learning.

### **Learning a language**

In the late 1950s and up until 1980s, success in language learning was viewed as being a function of aptitude. Such focus on aptitude, dominated research in the field of foreign language learning. Foreign language aptitude was defined as the “initial state of readiness and capacity for learning a foreign language” and was composed of four components (Carroll, 1981, p. 86). The first of these referred to the ability of an individual to make distinctions between sounds and the symbols that they represent. The second component was the presence of grammatical sensitivity, recognizing grammatical functions of words in the sentence they appear. The third component was retaining what was learnt. The final component was the ability of the learner to work on the rules inductively and understand them. Foreign language learning was further defined later as the presence of cognitive abilities that are “predictive of how well, relative to others, an individual can learn a foreign language” (Carroll &

Sapon, 2002, p.23). One of the tests devised for measuring aptitude through these components was The Modern Language Aptitude Test (MLAT; Carroll & Sapon, 1959). Research conducted through the use of the MLAT focused on cognitive traits in explaining difference in language acquisition among adult learners (Harley & Hart, 2002; Ross, Yoshinaga, & Sasaki, 2002). However, seeing language learning from the perspective of it being solely dependent on cognitive traits was criticised. Thus, research started focusing on non-cognitive factors such as motivation for learning (Dörnyei, 1994; Gardner, 2001; Gardner & Lambert, 1959; Gardner, Tremblay, & Masgoret, 1997; Masgoret & Gardner, 2003; Skehan, 1989; Tremblay & Gardner, 1995) and the use of various language learning strategies (Ehrman & Oxford, 1990; O'Malley & Chamot, 1990; Schmitt, 1997; Skehan, 1989).

Gardner and Lambert (1959) were the first Canadian social psychologists to become interested in foreign language learning (L2) motivation and carry out the first empirical investigation related to L2 learning motivation. Their work revealed that learning a language is not like learning any other subject and that it “requires considerable time, effort, and persistence” (Gardner, 2001, p.4). Gardner and Lambert’s (1959) work, revised several times focused on *social psychological approach* and contributed to the popularization of motivation research (Gardner & MacIntyre, 1993). The *social psychological approach* in the 1960s and 1980s focused on integration of social and individual psychology. From this perspective, learner’s attitude towards the community and the language in which it is spoken would have an influence on their behavior and success in learning the language (Gardner, 1985). With its focus on “integrative motive,” Gardner’s *social psychological approach* was viewed as being inadequate as it did not focus on



motivation within the actual language classroom. The *cognitive-situated period*, in 1990s, provided a way ahead in language learning motivation in that propositions and suggestions as to how to enrich the views posited by the *social psychological approach* were made. Specifically, when cognition came into focus, motivation was situated in the classroom. In the late 1990s, *process oriented period* came to the forefront in language learning motivation research. Led by Dörnyei (2001), Dörnyei and Otto (1998), and Ushioda (2001), *process model* emphasized motivation as a dynamic process rather than a product. Such line of research focused on the influence of teachers, peers and significant others within the physical classroom settings. Within the same period, Oxford and Shearin (1994) analyzed various motivational theories and models and identified the following six factors as impacting motivation in language learning. Learner

- Perspectives of the target language and the community;
- self-efficacy beliefs and anxiety;
- reasons for learning;
- active and conscious engagement in the language learning process;
- teacher and peer support;
- personal attributes (i.e. gender, age, aptitude).

It is important to understand these factors as each language learner who enters the classroom is cognitively, affectively and physically different. The learners have different attitude, beliefs and reasons for learning. The educational tasks within the classroom place demands on the learners. It is the interaction between these demands and “the strengths and weaknesses in abilities that [the learners] bring to them” that

results in progress “along the route from novice to expert” (Robinson, 2001, p. 243). Further, it is the match between instructional task demands, learner interests, motivations and abilities that can help learners progress (Dörnyei, 2002, 2005). Given the variability in the rate of learning and level of attainment of success among language learners, a pertinent area of inquiry in language learning studies is how motivation and learning strategies work together. No one model investigates the range of motivational characteristics. Self-regulated learning influenced by six prominent theoretical perspectives amalgamates all these factors and provides a coherent framework. Pintrich was one of the first researchers to investigate the relationship between self-regulated learning and motivation and compound self-regulated learning in four phases (Pintrich, 2000). Since the combination of phases in Pintrich’s (2000) model offer a comprehensive picture of the self-regulation processes deployed, it is the four phased framework of social-cognitive model of self-regulated learning (Pintrich, 2000, 2004; Pintrich & Zusho, 2002) in light of Self-Determination Theory (SDT; Ryan & Deci 2000) which forms the theoretical basis of this study.

### **Self-regulated learning**

Self-regulated learning (SRL) is defined as “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate and control their cognition, motivation and behaviour, guided and constrained by their goals and contextual features in the environment” (Pintrich, 2000, p. 453). As reflected in this definition, self-regulated learning includes a variety of sub-processes: metacognitive processes (Winne & Perry, 2000), self-efficacy beliefs (Schunk, 1994; Schunk & Zimmerman, 1997), learning strategies (Weinstein, Zimmermann & Palmer, 1988;

Zimmerman & Martinez-Pons, 1986) and motivational regulation (Wolters, 1998, 2003). Although there are differences in the emphasis in different studies on self-regulated learning, highly cited models and theories agree on certain aspects of SRL with differing terminology and emphasis on different aspects. In this dissertation, initially self-regulation from the perspective of six prominent theoretical perspectives as presented by Zimmerman (1989 as cited in Zimmerman & Schunk, 2001) is discussed. Following this, Pinrich's (2000) integrative review of self-regulated learning represented through four phase cycle is presented as the theoretical framework.

### **The six prominent theoretical perspectives**

Zimmerman (1989 as cited in Zimmerman & Schunk, 2001) discusses self-regulation theories as a “distinctive approach to academic learning and instruction” (p.1). The six prominent theoretical perspectives on self-regulated learning provided by Zimmerman (1989 as cited in Zimmerman & Schunk, 2001) are operant views, phenomenological, social cognitive, volitional, Vygotskian and cognitive constructivist approaches. These will be presented to delineate the theoretical fundamentals of this dissertation and present the theoretical framework.

Behaviourism, as a learning theory, was the primary paradigm between 1920s and 1950s (VanPatten & Williams, 2007). According to behaviourist, like B.F. Skinner (1957), imitation was seen as one of the key ways in which a foreign language was learnt. Accordingly, the language models provided for imitation needs to be accurate and plenty. During the imitation process, there is “repetition to reinforce habit”

because behaviorists believe that only those patterns which are repeated and thus reinforced would “persist” (Omaggio-Hadley, 2001, p.56). Operant theorists have followed the principles of B.F. Skinner and viewed learning in terms of stimulus-response. According to the operant theorist, the external factors in learning help to self-regulate (Zimmerman, 1989 in Zimmerman & Schunk, 2001).

Phenomenologists, on the other hand, emphasized the role of self as generating motivation to approach and persist in the learning activities highlighting the role that self-worth plays in self-system structures (McCombs, 1989 as cited in Zimmerman & Schunk, 2001). According to the model, the emphasis is on self-evaluation which requires the learner to evaluate task requirements against their competence and self-system structures. These self-evaluations lead to students’ use of planning, goal-setting and affect self-system. McCombs’s model also emphasizes the importance of affective concerns in that through negative self-perception, a student could create anxiety and this could diminish motivation and result in withdrawal from the task. However, if the self-perception is a positive one, the student can both be confident and intrinsically motivated in the learning process, persisting in effort to learn.

From the perspective of social cognitive theory, cognition, affect as well as behavioural and environmental events determine efforts to self-regulate (Schunk, 1989 as cited in Zimmerman & Schunk, 2001). The social-cognitive theory emphasizes the interplay between personal factors such as cognitive processes, environmental factors and behaviour (Bandura, 1986). The triadic model shows that the individual acts (i.e. behaviour) within a particular setting (i.e. environment) and draws conclusions (i.e. personal determinants) based on the consequences of his or

her behaviour. The theory posits that individuals who are aware of their capabilities and the possible challenges will set goals and take appropriate actions to accomplish their goals (Bandura, 1991). Through self-observation, the individual can monitor their progress and based on this information, individuals may decide to preserve or change their behaviour in the form of strategy use and work toward attainment of goals. Based on the triadic view, Schunk (1994) proposed that learners start the learning activities with goals in mind. During the activities, they observe and react to the progress they made in relation to the goals. Within the self-reaction stage, learners make attributions. Those who attribute success to factors other than themselves are seen to hold low-efficacy beliefs. However, those who attribute success to effort and effective use of strategies are seen to have higher self-efficacy beliefs and remain motivated throughout the task. Within the social-cognitive theory, Bandura (1986) identifies perceived self-efficacy, i.e. beliefs concerning one's capabilities, as an important construct. Achievement behaviours such as choice of task, effort expenditure and persistence are viewed to be influenced by learner's self-efficacy beliefs (Schunk, 1989 as cited in Zimmerman & Schunk, 2001).

Another prominent theoretical perspective is volitional view to self-regulated learning. Volition refers to enactment and protection of intended actions (Corno, 1993). Of the two distinct phases (i.e. pre-decisional and post-decisional phase) in goal-directed activities (Heckhausen & Kuhl, 1985), volition comes into play after decisions such as effort expenditure or persistence, assessment of value, weighting of outcome expectancies are made. That is, within the pre-decisional phase, students choose specific goals and intentions. In the post-decisional phase the student uses volitional strategies with the aim of maintaining goals and intentions (Corno, 1993).

Accordingly, these strategies help manage cognitive and non-cognitive resources for goal attainment (Corno, 1993). Some of these strategies include selective attention control, motivation control and information processing control. More precisely, students imagining themselves as getting good grades, reminding themselves of their goals, considering consequences of procrastination on academic tasks would be employing volitional strategies (see Bembenutty & Karabenick, 1998; Wolters, 1998). According to Kuhl (1985 as cited in Zimmerman & Schunk, 2001) self-efficacy as a motivational factor encourages task involvement and volition enhances involvement. Accordingly, in the pre-decisional phase, goal setting and expectancy-value processes influence motivational beliefs such as self-efficacy, task value and goal orientations (Husman, McCann, & Crownson, 2000). Volitional strategies are part of executive motivation and affect effort maintenance (Gollwitzer, 1996).

Vygotskyan (1962) perspective highlighted the role of social and instructional environment (i.e. parents, teachers, tasks and peers) in self-regulated learning.

Vygotsky (1978) stated that it was the relations of the person with the environment that would explain how conscious behavior would enable a person to anticipate, plan and act on particular goals (Luria, 1979 as cited in McCaslin & Hickey, 2001).

Vygotsky claimed that thinking and focused attention would involve self-regulatory processes. These would encourage for participation in task or activity at metacognitive and motivational levels. According to Vygotsky (1978), there are three forms of speech: social, private and inner. The social speech refers to communication with others and private speech is self-directed. He viewed private speech as the transition from social to inner speech and as the use of language for self-regulation behavior.

Constructive perspective, as another prominent perspective in self-regulated learning, has its historical roots in the work of Bruner (1961), Vygotsky (1962) and Piaget (1980). A key assumption of constructivist view is that individuals develop knowledge for themselves (Geary, 1995), constructing meaning from own understanding of the world through experiences and reflection on those experiences (Bereiter, 1994). Theorists with constructivist view hold that there is no one truth and that knowledge should not be imposed from outside but formed within the individual through reasonable doubt (Derry, 1996; Simpson, 2002). Within the learning process, active role given to the learners in the construction of meaning underlies many learning principles related to cognitive processing, expectations, values and self-perceptions (Derry, 1996). Thus, the constructivist perspective on learning views learners as self-regulated learners who are “metacognitively, motivationally, and behaviorally active participants in their own learning processes” (Zimmerman, 1989, p. 4).

Pintrich (2000) shares these assumptions of self-regulated learning by the six theories in his integrative review of self-regulated learning. Like other researchers (Deci, Ryan, & Williams, 1996; Zimmerman, 1989), Pintrich (2000, 2004) posits that self-regulated learning involves how cognitive and motivational elements jointly function in learning. In self-regulated learning, learners are active and constructive in their own learning. That is, learners do not just passively receive knowledge but rather actively make meaning. Additionally, Pintrich (2000) stresses that the learners can control their own motivation and cognition.

Another aspect of self-regulated learning is that learners set goals, a criterion against which they evaluate the process and regulate it. The learners evaluate the progress against the goals and standards they set for themselves. To meet the standards set as part of goal setting, learners may apply different cognitive learning strategies.

Pintrich (2000), inspired by social cognitive theory, presented a four-phased framework of self-regulated learning. These phases include forethought, monitoring, control and reflection and occur under four main areas of cognition, motivation and affect, behaviour and context (Pintrich 2000). This model has been applied as a theoretical framework in empirical studies investigating the interaction between motivational and cognitive processes in self-regulated learning (e.g., Azevedo, Cromley & Seibert, 2004). This four phase cycle is used as the theoretical framework as self-regulation is viewed as the “cumulative product” of these cycles and related processes (Dunn, Lo, Mulvenon & Sutcliffe, 2012) and result in positive academic outcomes (Pintrich & De Groot, 1989; Zimmerman, 1990).

### **Self-regulatory processes in the four phases**

The four phases included in the development of self-regulatory processes are *forethought and planning, performance monitoring, control and reactions and reflection* (Pintrich, 2004). Hence, following the aim of this dissertation study, the subsequent discussion of self-regulated learning primarily discusses relevant cognitive, motivational, affective and behavioral factors in each of these phases and examines the interplay of these concepts. Specifically, the *forethought and planning phase* involves self-regulatory activities such as activation of knowledge (cognition), efficacy judgements and goal orientations (motivation and affect), time planning and



effort regulation (behaviour) and task value perceptions (context). The general orientation of the learning task is shaped by the interaction of goals, beliefs, task context and classroom environment (Pintrich, Marx, & Boyle, 1993). The performance monitoring phase involves metacognitive awareness and control over cognition. Thus, the learner selects cognitive strategies appropriate to the task (Pintrich & Zusho, 2002). Through the inclusion of metacognitive processes, the learner judges the effectiveness of strategy use. This stage includes self-observation during learning efforts. The next phase, i.e. the control phase, consists of selection and adaptation of strategies for learning, thinking and motivation. This phase involves “efforts to control and regulate different aspects of the self or task and context” (Pintrich, 2004, p.389). According to Pintrich (2004), rehearsal, elaboration, organization, critical thinking are important in engaging students in regulation of their cognition. Rehearsal involves memorizing and highlighting. Elaboration includes summarizing and note-taking and organizational strategies include outlining and organizing ideas. Critical thinking involves evaluating arguments. All of these are viewed as important in helping students regulate their learning.

Researchers have investigated the use of these strategies in the regulation of cognition (Pintrich & De Groot, 1990; Pintrich et al., 1993; Zimmerman & Martinez-Pons, 1986). These cognitive strategies are included in the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich and De Groot in the early 1990s. The five scales include rehearsal, elaboration, organization, critical thinking and metacognitive self-regulation. More specifically, the learners set goals, activate prior knowledge, plan and engage in metacognitive activities and cognitive regulation. Finally, the forth phase, i.e. reaction and reflection phase consists of

cognitive judgements, affective reactions, evaluation of the tasks and related decisions regarding future academic activities. These phases, according to Pintrich (2004) can occur concurrently depending on the learners' progression with a task, as not all academic learning follows a hierarchical and linear structure. That is, the learner may alter their plans based on feedback in each of these phases.

### **Forethought and planning phase**

During the forethought and planning phase, students consider why an activity should be completed and how much effort should be put into it. Forethought processes are affected by values, interests (Wolters & Pintrich, 1998) and self-efficacy beliefs (Zimmerman, 2000). Those students who are highly self-regulated learners value learning, proactively set goals, create a plan to act and engage in tasks in an attentive and self-efficacious way (Cleary & Zimmerman, 2004).

### *Expectancy-value models of motivation*

Motivation involves both motivation to succeed and motivation to avoid failure (Atkinson, 1964). While the former refers to one's overall need for achievement, the latter refers to avoiding failure due to fear of the negative outcomes. One dominant theory within motivation literature is expectancy-value theory (Eccles et al., 1983; Eccles & Wigfield, 2002; Wigfield & Eccles, 2000). Grounded in a socio-cognitive perspective of motivation, the theory focuses on how students make meaning of their experiences in their learning contexts (Eccles & Wigfield, 2002). According to this theory, motivation is individual's belief in the achievement of a task and the importance placed on achieving the task (Atkinson, 1957; Eccles et al., 1983; Wigfield, 1994; Wigfield & Eccles, 1992). Within the realm of this theory,

achievement-related behaviours such as academic choice and performance are important. The two crucial components are self-efficacy and task value beliefs as these help to understand student academic achievement (Atkinson, 1957; Eccles et al., 1983; Eccles & Wigfield, 2002). Thus, if the learner feels that s/he is able to achieve a desired goal and values the task, the individual will possess a positive motivation. In cases, where the learner feels unable to succeed, the learner may not be motivated to try hard and give the task its due importance. From the perspective of this theory, students will not invest effort in a task that they do not find enjoyable or find leading to valued outcomes even if they know that they can successfully perform a task. Even if they value the tasks highly, if the students believe that they cannot succeed on a task despite trying very hard, they will not invest effort.

Hansen (1995) posited that depending on the expectations and task values, students are likely to adopt an approach from the four approaches of dealing with the tasks assigned in classroom. The students may choose to *engage* in a task. That is, they may work towards making sense of the task and gaining new insights. If not engaged, the students may *dissemble*. They may understand the value of the task but may think that they are not capable of meeting its demands. More specifically, they may not know what to do and how to do it. Such uncertainties may affect students' beliefs in their abilities to accomplish tasks. Thus, the students may pretend as if they understand or they may engage in other behavior to protect their ego rather than improve their knowledge. The contrary may also happen in that students may possess high expectancies of self but possess low perceptions as to task value. Thus, the students may *evade*, focusing on the task sufficiently in response to the pressure from

grading system or other sources such as parents. The students may also *reject* and withdraw from the task when both expectations and value perceptions are low.

According to expectancy-value model (Eccles & Wigfield, 2002), the expectancy component refers to students' beliefs on how well they will do on a task based on their goals and efficacy expectations. Value component refers to the extent to which the students value what is being studied and includes successful completion of a task, its usefulness for some future purpose and interest in the task due to the challenge level it provides.

### *Self-efficacy*

One concept that stands out in current theories of motivation is self-efficacy.

Bandura (1977) introduced the construct of self-efficacy as part of social cognitive theory of motivation and described the term as “the belief in one's capabilities to organize and execute courses of action required to produce given attainments” (p. 3). Bandura (1997) theorized that such beliefs help determine the choices made, the efforts put forth, the form of perseverance displayed when challenged and the degree of anxiety experienced in life. In academic setting, self-efficacy refers to students' confidence in their ability to carry out academic tasks.

There is evidence that suggests that self-efficacy beliefs may change in instructional contexts, with instructional interventions resulting in improved motivation to achieve (Schunk & Parajes, 2002; Zimmerman, 2000). Self-efficacy beliefs are hypothesized to be affected by prior experience, personal qualities and social support. Prior experience refers to the observation of other people doing the new task. Personal

qualities refer to abilities and aptitude. Social support refers to the support provided by teachers in facilitating the use of learning strategies (Zimmerman, 2000). Being engaged in a task, self-regulation and teacher support can provide them with useful evaluation of their performance and progress. With positive evaluation, self-efficacy beliefs can be heightened. In cases of negative evaluation, they may still sustain their self-efficacy if they think that the effort they put and the use of strategies will result in better performance (Schunk & Parajes, 2002).

Self-efficacy beliefs do not result in student engagement in tasks if it is not coupled with positive outcome expectations and belief in utility value of a task as represented in the expectancy-value theories. Self-efficacy has shown to predict students' academic achievement (Bong, 2001; Hackett, Betz, Casas, & Rocha-Singh, 1992; Urdan & Pajares, 2006). It was also found in similar studies that students with self-efficacy are hard-workers, who evaluate their progress and use self-regulatory strategies that help them become successful in school (Schunk & Parajes, 2005).

A related term to self-efficacy is self-concept. Skaalvik (1997) stated that self-concept is formed through experiences with the environment and identified “frames of reference, causal attributions, reflected appraisals from significant others and mastery experiences” as key antecedents to self-concept. Frames of reference play an important role in self-concept as the person judges his/her own accomplishments against certain standards. Causal attributions refer to attributions that are made for previous success or failures which in return influence self-concept and attributions. Reflected appraisals from significant others refers to the view of self, based on the information that is coming from how other people view us (Skaalvik, 1997). The

prior mastery experiences, which Bandura (1997) refers to as the results of one's previous attainments is important in the formation of self-concept and thus self-efficacy.

Once the students complete an academic task, they interpret and evaluate the results and later revise those interpretations. If they see that their efforts are successful, they will accomplish similar tasks with confidence. If they see that their efforts result in failure, their confidence to be successful in similar tasks will decrease. When students experience failure although they have put forth great effort, their beliefs about their efficacy may be undermined and they may think that to lack of ability and luck resulted in such failure. Weiner's (1985) attribution theory assumes that learners try to interpret the causes for their failure and success to make sense of the observed event and adds that such interpretations influence learner's expectancy, values, emotions and beliefs. Thus, those students who have earned good marks in English throughout school will believe themselves capable in English. The students need to realize that although failure may occur periodically, as students notice a gradual improvement in skills over time, they experience a boost in their self-efficacy.

#### *Reasons for learning: Intrinsic-reasons and extrinsic motivation*

SDT highlights the importance of “humans’ evolved inner resources for personality development and behavioral self-regulation” (Ryan & Deci 2000, p. 68). According to SDT, there are three basic psychological needs: the need for competence, relatedness and autonomy (Ryan & Deci, 2000). Competence refers to demonstration of skills through social interaction. Relatedness refers to the fulfilment of the need to belong and feeling of being connected to others. Psychological needs are enhanced

when socio-contextual conditions are provided to support them psychologically. Thus, within the context of schools, classroom conditions are important in the provision of such support and motivation (Ryan & Deci, 2000).

Deci and Ryan (1985), in SDT, distinguish between intrinsic and extrinsic motivation. Intrinsic motivation assumes that individuals have an innate curiosity and will do something because it is inherently interesting. According to Deci and Ryan (1985, p. 245) intrinsic motivation is “in evidence whenever students' natural curiosity and interest energize their learning.” Intrinsically motivated learners engage in the learning process because they find it interesting and enjoyable. Intrinsically motivated learners actively engage in the learning process because they think the task is interesting and enjoyable. They do not have any expectations such as rewards.

Extrinsic motivation, on the other hand, refers to doing something in the presence of appropriate incentives (Deci & Ryan, 1985) with the desire to obtain a reward or avoid punishment. Extrinsically motivated learners “performs to receive some extrinsic reward such as getting good grades, being praised by the teacher or to avoid punishment” (Dörnyei 1994, p. 275). When students have no reason, intrinsic or extrinsic, to do an action, they will leave the activity as soon as they find a more motivating goal to pursue. The following are some of the characteristics of intrinsically motivated learners. Intrinsically motivated students:

- review the material themselves with less need for support for revision;
- are more lifelong learners, educating themselves;

- persist until they accomplish a task successfully (Noels, 2001; Oxford & Shearin 1994)

The extrinsically motivated learner performs a task for some external objective (personal gain, reward, etc.) (Noels et al., 2003). Extrinsically motivated students may:

- work hard to learn the language for the purposes of getting good grades and gaining teacher praise and thus be considered extrinsically motivated, externally regulated students;
- perform an activity to avoid guilt and failure and impress those around them with his/her success, adapting introjected regulation;
- employ identified regulation by viewing second language learning is “an important aspect of their educational development [and] endure repetitive oral exercises in the interest of obtaining this level of competence” (Noels et al. 2003, pp. 39-40).
- integrate “identified regulations ...to the self” (Deci & Ryan 2000, p. 73), viewing the activity as worthwhile.

Ryan and Deci (2017) differentiate between extrinsic and intrinsic reasons in SDT. Accordingly, students participate in activities for either autonomous or controlled reasons. If the student engages in an activity for autonomous reasons, the student demonstrates self-determined behaviors. That is, they are engaged in the task because they find it challenging. However, if the student is engaged in a task due to controlled reasons, the student does so to gain a reward or avoid negative feelings.



Self-worth concerns come to the front in controlled reasons. Research has shown that it is autonomous reasons which are associated with study efforts (Mouratidis, Michou, Aelterman, Haerens, & Vansteenkiste, 2018) and critical thinking (León, Núñez, & Liew, 2015).

In short, a combination of both intrinsic and extrinsic reasons may prompt individual's actions. SDT views extrinsic and intrinsic motivation as a continuum. Within this continuum, students internalize, i.e. actively engage in their own “social world, gradually transforming socially sanctioned ...requests into personally endorsed values and self-regulation” (Moller, Deci & Ryan 2006, pg. 589). In this continuum, Noels et al. (2003) identified different types of intrinsic and extrinsic motivation. The first type is the “knowledge” which includes doing an activity for exploring new ideas and knowledge. The second type of motivation is “accomplishment.” This type of motivation refers to sensations for achieving a goal or task. The final type of intrinsic motivation involves the excitement triggered by doing a task also referred to as “valence” (Lee, Locke, & Latham, 1989). The extrinsic motivation includes external, introjected and identified regulation. The least self-determined type of extrinsic motivation is external regulation, i.e. the activities that are external to learners. The learners should see the value in their performance; otherwise, as Oxford and Shearin (1994) state, their motivation will be lowered. Introjected motivation is more internal in that it refers to performing an activity due to some kind of internal pressure such as avoiding guilt. The most self-regulated type is identified regulation, allowing students to carry out an action due to personally related reasons and attaining goals. According to Deci and Ryan (2000), goals are effective motivators if they become internalized. As Dörnyei (2002, p. 12) states

“[individuals] will be more motivated to do something out of our own will than something [they] are forced to do.”

### **Performance monitoring and control phase**

In the performance phase, the learner manages own learning through control. Pintrich and Schrauben (1992) posit that monitoring and control strategies are closely related. Thus, the following includes the discussion of both of these phases.

In the performance phase, the students execute the task and monitor their progress. In doing so the students use a number of strategies to cognitively engage in the task and stay motivated to finish the task. During the performance monitoring phase, students assess whether the learning task is meaningful. It is their intrinsic motivation and volition that guides their effort and persistence in completion of the task and use of self-regulation strategies.

In the control phase, the student regulates cognition through the use of various strategies. While monitoring, those students who are metacognitive, reflect on their use of the strategies, actions, behavior, and thinking and regulate their own learning. In this stage, the student evaluates the plan and decides on future learning efforts (Cleary & Zimmerman, 2004).

### *Learning strategies*

In self-regulation motivational, cognitive and metacognitive elements jointly function (Pintrich & De Groot, 1990; Weinstein, Husman & Dierking, 2000; Zimmerman, 1994). Stern (1975) and Rubin (1975) investigated the strategies used

by successful language learners in terms of "...approaches, or deliberate actions that are employed by students to facilitate the learning" (Stern 1975; p. 71), "specific actions, behaviours, steps or techniques" (Oxford, 1990, p. 518) which students employ to effectively learn. Various classifications of learning strategies are possible (O'Malley & Chamot, 1990; Rubin, 1975; Stern, 1975;).

Regardless of the exact classification, learning strategies appeal to students' cognition, metacognition and motivation (Pintrich, 2000). Learning strategies are used to help with information processing (Pintrich & De Groot, 1990; Pintrich, Smith, Garcia & McKeachie, 1993; Weinstein & Mayer, 1986). Marton and Saijo (1984) identified surface-level and deep-level processing. Surface level strategies involve rehearsal and rote learning (Elliot, McGregor, & Gable, 1999). Rehearsal, as a surface-level learning strategy, facilitates information processing and help keep information active in memory. These strategies involve memorization of facts, rereading class notes, highlighting main information or copying material (Schraw, 1998). All of these provide opportunities for students to meaningful process information (Weinstein, Zimmermann, & Palmer, 1988). That is, some tasks can involve stages in which surface level processing is needed as an initial stage. Deeper level strategies include connecting materials to existing information and applying knowledge in new situations (Simons, Dewitte, & Lens, 2004). One of the deep level strategies is critical thinking, i.e., "the degree to which students report applying previous knowledge to new situations in order to solve problems, reach decisions or make critical evaluation with respect to standards of excellence" (Pintrich et al., 1991, p. 22).

If the learner views the learning process as gaining information and expanding general knowledge, repeating the information for the purposes of a test and applying the learnt knowledge, the learner is seen to be employing surface level strategies. On the contrary, if the learner views learning as understanding and discovering to gain new insights about previous and acquired knowledge and see its relations to new knowledge, the learner is seen as adopting a deep approach to learning (Beaty, Marton, & Dall'Alba, 1990; Marton & Säljö, 1984; Säljö, 1979; van Rossum & Schenk, 1984).

The surface level strategy and deep level strategy distinction has been applied in research with instruments using MSLQ (Pintrich & De Groot, 1990). Despite the assumption that deeper level strategy would be related to higher academic success, not all studies agree with this assumption (see Wade, Trathem, & Schraw, 1990). Indeed, research suggests that surface processing is consistently related to surface level learning strategies but not to deep level strategies (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997; Simons et al., 2004).

In addition to cognitive strategies, metacognitive strategies influence students' learning and performance (Garcia & Pintrich, 1994; Pape & Wang, 2003; Pintrich & De Groot, 1990; Pintrich et al., 1993). Metacognition refers to knowledge about cognition and variables that interaction with cognition (Flavell, 1976).

Metacognition involves control of cognition in that it is the deliberate actions of learners while working on academic tasks (Schraw & Moshman, 1995; Veenman, Van Hout-Wolters, & Afflerbach, 2006). Metacognitive strategies involve planning (e.g. establishing goals for studying), monitoring (e.g. evaluation of progress) and regulation of the learning process (e.g. revisiting a text) (Garcia & Pintrich, 1994;

Pintrich, 2004). Research provides evidence for the the relationship between metacognitive strategies and self-efficacy beliefs (Buehl & Alexander, 2006; Sungur, 2007). Additional research has shown that those students who adopt metacognitive strategies possess decreased levels of anxiety (Warr & Downing, 2000).

If a learner consciously chooses strategies to deal with the language task at hand, these strategies help for purposeful self-regulation of learning. As stated by Macaro (2006) successful learning “is no longer linked to the individual learner’s frequency of strategy use, but to his or her orchestration of strategies available to him or her” (p. 332). Research has provided evidence for a link between cognitive learning strategies and academic success (Pintrich & De Groot, 1990; Pintrich & Garcia, 1991; Zimmerman & Martinez-Pons, 1990). Research has emphasized that along with an understanding of how, when, why and what strategies learners use, it is important understand their motivation in using the strategies.

### *Effort regulation*

There may be motivation but no engagement. Motivation is transformed to engagement through effort and metacognitive regulation (Pintrich, Smith, Garcia, and McKeachie., 1993). Effort regulation refers to students’ willingness to try hard even when the work is difficult (Pintrich et. al, 1993) and control “one’s effort expenditure” (Halisch & Heckhausen, 1977, p.724). Students may have the motivation to accomplish an academic goal but may not know how structure their efforts. Thus, they may think that increasing the amount of study time leads to the accomplishment of goal. Effort regulation, is a self-management strategy which serves as a predictor of academic success (Doljinac, 1994; Lee, 1997), which

“depends not on total time spent studying but on self-management skills” (Delucchi, Rohwer Jr., & Thomas, 1987, p. 64). Effort has been researched as an outcome variable in various studies. Within the scope of this study, predictors of effort regulation include learning goals (Agbuga & Xiang, 2008; Meece & Holt, 1993; Greene, DeBacker, Ravindran, & Krows, 1999), self-efficacy (Bandura, 1986; Bandura & Cernove, 1983; Kitsantas & Zimmerman, 2009) utility value beliefs (Eccles & Wigfield, 1995; Hardré, Sullivan, & Roberts, 2008) and parents (George & Kaplan, 1998). All of these self-regulatory processes which combine various learning strategies and motivational factors necessary to regulate students’ study efforts is called effort regulation.

### **Reaction and reflection phase**

Accompanying efforts, within this final phase, self-reflection process occur.

Accordingly, those students who are self-regulated learners may feel positive about their performance when they compare it to the standards. They may reflect on their previous grade, attributing their lack of performance to the use of faulty strategies. Such reflection allows them to make modifications to the strategies. Since these processes also include affective reactions, learning efforts may be halted due to anxiety.

### ***Self-worth theory***

According to self-worth theory of motivation (Covington, 1984, 1992; Covington & Beery, 1976), self-worth refers to the value the person attaches to oneself in relation to how competent they think they appear in the eyes of others in achievement situations. Self-worth theory assumes that personal worth and belonging are

important for individual students because they are measured according to their ability to achieve. The self-worth theory (Covington, 1992, 2000; Covington & Omelich, 1991) posits that students may deliberately withhold effort. Otherwise, if they put all their effort into the task and fail, this would be an indication of low-ability. Thus, as effort increases, poor performance may reveal low ability and such low ability may result in shame and lower expectations for future success.

Students would rather associate failure with low effort than high effort and the resulting failure (Covington & Omelich, 1985). Those students who have doubts about their ability, avoid failure, and are concerned about demonstrating their competence (ego-oriented individuals) may use self protection strategies. One of these strategies is “self-handicapping” strategies (Covington, 2000; Thompson, 1993). Some of these strategies include pretending as if effort is exerted on the tasks, appearing attentive, making up stories for inability to study and procrastinating work. These individuals “who are concerned about proving that they are competent may choose to use these [self-handicapping] strategies to promote their image as able to others, especially if they perceive that they may perform poorly” (Midgley, Arunkumar, & Urdan, 1996, p.425). Such strategies may backfire and the result may be low expectancies for success and thus low achievement (Thompson, 1993, 1996). In literature, the terms ego-involvement, performance goals and extrinsic goal orientation are used interchangeably. Although there are differences between the terms, these terms, as acknowledged by Greenwald (1982), are subsumed under ego-related dimension, more specifically, psychologically controlling reasons. The reason for this being, they are primarily concerned about an individual demonstrating their competence to others.

### *Test anxiety*

Within the realm of social cognitive theory, anxiety is seen as the result of low self-efficacy beliefs. According to Bandura, anxiety is “a state of anticipatory apprehension” (Bandura, 1997, p. 137) and arises in “potentially hurtful... environment (Bandura, 1991, p. 89). Language anxiety refers to “the feeling of tension...specifically associated with second language,” is seen as one of the most frequent affective factors that impedes the learning process and found to be the strongest negative correlate of language achievement (MacIntyre & Gardner, 1994, p.284).

The perceived importance a student attaches to success or failure on a cognitive task, along self-efficacy beliefs are seen as important components which affect student anxiety in assessment situations (Pintrich, 1989). Students’ goals and values have an influence on their affective reactions to test situations (Garcia & Pintrich, 1994). The greater the value or importance attached to a test, the more the anxiety level of the learner is (Pekrun, 1984).

From the perspective of expectancy-value models of learning, value beliefs would include the test-takers perception of the utility value of the test for the future goals, elevating test anxiety (Zeidner, 1998). Additionally, the students may have differing reasons for engaging in an evaluative task. While some may have intrinsic orientations others might have extrinsic goal orientations. Those with intrinsic goal orientations may focus on mastery of the material. Those with extrinsic orientations may be focusing on impressing others with their performance rather than mastery.



The path from English learning experience to English anxiety is confirmed by a number of studies (Aida, 1994; Young 1991). The researchers found that negative second language learning experience in the classroom results in increase in language anxiety, while a positive learning experience decrease students' level of anxiety. Within a classroom with negative second language learning experience, an anxious learner has been found to be less likely to answer questions in oral activities (Ely, 1986) and more likely to show avoidance behaviours such as missing class or postponing assignments (Hortwitz et al., 1986).

The two well-known dichotomies associated with L2 anxiety are: “*facilitating vs. debilitating anxiety*” and “*state vs. trait anxiety*” (MacIntyre, 1995). “*Facilitating vs. debilitating anxiety*” refer to anxiety that do not always impede performance and may actually have a positive influence on the learning behaviour. As for “*state vs. trait anxiety*,” while state refers to the anxiety that is temporary feeling of anxiety which could vary in its intensity, trait anxiety refers to a stable level of anxiety across different situations. The level of anxiety experienced may diminish as their foreign language levels increase if state anxiety does not turn into trait anxiety.

The above discussion focused on motivated and self-regulated learner, examining the relationship between students’ motivation orientation, self-regulated learning and academic achievement (Pintrich, 1989). In light of this discussion, it is possible to see research pointing out that if students view tasks as useful and have heightened self-efficacy beliefs, they are likely to regulate their efforts (Eccles et al., 1983; Eccles & Wigfield, 2002). Positive relations were found between utility value and self-efficacy beliefs (Griggs, Rimm-Kaufman, Merritt, & Patton, 2013; Raufelder &

Ringeisen, 2016; Rimm-Kaufman, Merritt, & Patton, 2013) and effort regulation (Credé & Phillips, 2011; Chase, 2001; Pajares & Schunk, 2005; Pintrich & De Groot, 1990; Zimmerman, 2000), interest and engagement (Eccles et al., 1983; Pintrich & De Groot, 1990; Pintrich & Schrauben, 1992), academic success (Hulleman, Durik, Schweigert, & Harackiewicz, 2008; Hulleman, Godes, Hendricks, & Harackiewicz, 2010), and deep-level learning strategies (Elliot & McGregor, 1999; Liem, Lau, & Nie, 2008; Prat-Sala & Redford, 2010), and metacognitive strategies (Komarraju & Nadler, 2013). Based on the above discussion, MSLQ (Pintrich & De Groot, 1990), grounded in social cognitive model of motivation and self-regulation, was seen as suited for the purposes of this study. Table 1 summarizes the discussion presented.

Table 1

| Phases and relevant scales                              | Areas for regulation                                                                            |                                                                                                                                      |                                                                                             |                                                       |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                                                         | Cognition                                                                                       | Motivation/Affect                                                                                                                    | Behaviour                                                                                   | Context                                               |
| <i>Phase 1</i><br>Forethought, planning, and activation | Target goal setting<br>Prior content knowledge activation<br>Metacognitive knowledge activation | Goal orientation adaptation<br>Efficacy judgements<br>Perceptions of task difficulty<br>Task value activation<br>Interest activation | Time and effort planning<br>Planning for self-observations of behavior                      | Perceptions of task<br>Perceptions of context         |
| <i>Phase 2</i><br>Monitoring                            | Metacognitive awareness and monitoring of cognition                                             | Awareness and monitoring of motivation and affect                                                                                    | Awareness and monitoring of effort, time use, need for help<br>Self-observation of behavior | Monitoring changing task and context conditions       |
| <i>Phase 3</i><br>Control                               | Selection and adaptation of cognitive strategies for learning, thinking                         | Selection and adaptation of strategies for managing, motivation, and affect                                                          | Increase/decrease effort<br>Persist, give up<br>Help-seeking behavior                       | Change or renegotiate task<br>Change or leave context |
| <i>Phase 4</i><br>Reaction and reflection               | Cognitive judgments<br>Attributions                                                             | Affective reactions<br>Attributions                                                                                                  | Choice behavior                                                                             | Evaluation of task<br>Evaluation of context           |
| Relevant MSLQ Scales                                    | Rehearsal<br>Elaboration<br>Organization<br>Critical Thinking<br>Metacognition                  | Intrinsic Goals<br>Extrinsic Goals<br>Task Value<br>Control Beliefs<br>Self-Efficacy<br>Test Anxiety                                 | Effort Regulation<br>Help-Seeking<br>Time/ Study Environment                                | Peer Learning<br>Time/ Study Environment              |

Four-phases of self-regulated learning

*Note:* From A conceptual framework for assessing motivation and self-regulated learning in college students (p.390) by Pintrich, P. R. (2004). *Educational Psychology Review*, 16(4), 385-407

### **Review of relevant research**

As a popular measurement instrument to assess student motivation and strategy use the MSLQ; Pintrich & De Groot, 1990) has gained renewed attention in the literature (Credé & Phillips, 2011; Duncan & McKeachie, 2005; Ramírez-Echeverry, García-Carrillo, & Dussan, 2016). Pintrich and De Groot (1990) conducted one of the first empirical research using the short version of MSLQ, as at the time, it was being completed. The researchers examined the relationship among motivation, self-regulated learning and academic performance in the classroom. Additionally, the researchers investigated how these variables related to performance variables such as students' final course grades, exams, quizzes, essays, reports and seat work. Short version of the MSLQ which consisted of task value, self-efficacy, test anxiety, self-regulation and cognitive strategy use was administered to 173 seventh grade students. While self-efficacy and task value were correlated with cognitive strategy and self-regulation, test anxiety was not associated with either. The researchers found that higher levels of self-efficacy ( $r = .33$ ) and task value ( $r = .63$ ) were correlated with higher levels of cognitive strategy use and higher levels of self-regulation. The researchers also found that higher levels of intrinsic value, self-efficacy, cognitive strategy use and self-regulation were associated with higher levels of achievement in all performance measures. Test anxiety, however, was found to be negatively correlated with achievement in all performance measures and positively correlated with seatwork. The results served as an empirical base and laid the groundwork for future use of the MSLQ through its provision of theoretical links between students' motivational orientations, their cognitive engagement and self-regulation in the classroom (Pintrich & De Groot, 1990).

The value attached to academic subjects was further investigated using MSLQ by Wolters and Pintrich (1998). The researchers investigated differences in motivational, cognitive and academic performance variables among 545 seventh and eighth grade students (95% of which were Caucasian) across subject areas of mathematics, social studies and English using a within subject correlational design and multivariate regression. The researchers investigated the value the students attach to different academic subjects. At mean level, the results revealed that both male and female students possess higher task value beliefs for mathematics. The results also revealed that for those students who valued the tasks, the task value predicted the use of deep level learning strategies for mathematics, English and social studies. Self-efficacy beliefs and test anxiety were also significant predictors of cognitive strategy use in the three subject areas but less compared to task value. Self-efficacy beliefs were highest in English for females, revealing that males possess similar levels of self-efficacy beliefs across the three subjects. Test anxiety results indicated that males possessed less anxiety in English and mathematics and female reported that they felt less anxious in English than in mathematics. For the cognitive strategy use, both the female and male students reported using cognitive strategies more in social studies than English, with greater levels of strategy use in English than in mathematics. Those students with high levels of self-efficacy beliefs and test anxiety made use of cognitive strategies. Thus, both female and male students used similar levels of self-regulatory strategies across the three subject areas. In terms of self-regulatory strategy use, those students who reported high levels of task value, self-efficacy beliefs used self-regulatory strategies more than those who reported lower task value, while those with high levels of test anxiety were less likely to report that they engaged in regulatory strategy use in the three

areas. The results of the correlation analysis revealed that students reported similar levels of strategy use across three subject areas, thus a high correlation between cognitive and self-regulatory strategy use across subject areas (with  $r$  – values between 0.85 and 0.90). The results of this research reveal that those students with high levels of self-efficacy and task value beliefs are more likely to utilize cognitive strategies. Additionally, the results indicate that due to test anxiety, the students may make use of cognitive learning strategies but may not always be able to regulate their own learning. It would thus be advisable for teachers across all subject areas to not only encourage students to value the tasks in the areas of studies, but also instill in them the belief that they should believe in their ability to perform well through the use of various learning strategies consistently. It also seems important to make students aware that high test anxiety can result in poor performance as such anxiety results in difficulties in regulating their learning (Pintrich & Schunk, 1996).

In their meta-analysis, Credé and Phillips (2011) reviewed the MSLQ (Pintrich & De Groot, 1990). This meta-analytic review included 2158 correlations from 67 independent samples and 19,900 college students. The researchers aimed to examine the validity of MSLQ subscales for academic performance. They also sought to provide evidence for the relationship between scores from subscales of the MSLQ and college GPA. An additional aim was to examine the utility of MSLQ and psychometric properties of the items. The meta-analytic review supports that the students who engage in self-monitoring and effort regulation, have intrinsic interests in the tasks and value them. These students also have higher levels of self-efficacy. The results also showed that the motivational variables in the MSLQ were related to learning strategies and learning strategies were in turn related to academic

performance. A weaker relationship was found between academic performance and learning strategies of rehearsal, elaboration, organization, critical thinking, peer learning and help seeking. Those students who used suitable learning strategies were found to have high grade point average. While the explanatory factor analysis of meta-analytic inter-correlations widely support the theoretical structure of the MSLQ, the researchers suggest that changes and removal of items with undesirable psychometric characteristics could provide empirical support for the theoretical structure of the MSLQ. An analysis of the psychometric characteristics can enhance the predictive utility of the subscales.

Gbollie and Keamu (2017) also used the MSLQ in their research. The MSLQ was adapted and used to measure the motivational component (22 items) and strategy use component (30 items). The researchers investigated the motivational beliefs held and learning strategies used by 323 Liberian high school students and whether there is a relationship between students' motivations and learning strategies. The researchers hypothesized that Liberian students were less self-efficacious, more extrinsically motivated to learn and had preference for rehearsal and organization strategies over critical thinking and effort regulation. The results showed that the students possessed extrinsic goal orientation belief. The students were found to value their tasks and be less anxious. Additionally, intrinsic goal orientations and self-efficacy beliefs positively correlated with organization and critical thinking while test anxiety negatively correlated with rehearsal, organization and critical thinking. The finding that the students are more extrinsically motivated reveals that the learners may actually be studying as they are under psychological pressure from the parents and teachers. The related finding that students mostly prefer rehearsal and organization

strategies suggest that these students, being extrinsically motivated, prefer to memorize for the purposes of passing exams. Teachers should be aware of wide use of rehearsal strategies by the students and encourage them to also employ deeper strategies such as critical thinking to enable learners to understand the material rather than memorize it for the exam.

Magogwe and Oliver (2007) also investigated the relationship between six language learning strategies (memory, cognitive, compensation, metacognitive, affective and social strategy) and proficiency. The researchers explored the types of language learning strategies the 168 primary school, 175 secondary school and 137 tertiary level Botswana students use and the relationship between the strategies preferred by these students and their age, proficiency and self-efficacy beliefs. The students completed a modified version of the SILL (Oxford, 1990). The students were asked to fill in the background questionnaire of this instrument so that the demographic information could be collected. In order to collect data on students' self-efficacy beliefs, the researchers used the Morgan-Jinks Student Efficacy Scale. The findings revealed that students at primary schools, with high proficiency use more strategies than students with low proficiency. For the secondary school and tertiary students, it was found that there is a significant effect for proficiency for fair students having the highest mean for strategy use. However, for the tertiary level, unlike the primary school students, there was no significant effect for proficiency with respect to strategy use. The results of the study thus revealed that that primary, secondary and tertiary Botswana students shows language strategy use preference in a different order. The primary school level students' social strategy use was found to be greater than that of metacognitive, cognitive, affective, memory and compensation



strategies. At this level, students with higher proficiency levels showed that they used more social and metacognitive strategies than did the fair and poor proficiency students. At the secondary level, metacognitive strategies were found to be the most preferred one followed by social, cognitive, affective, memory and compensation strategies. Thus, good and fair students indicated a greater preference for metacognitive, social and cognitive and compensation strategies than poor proficiency level students. At the tertiary level, the order of preference is metacognitive followed by cognitive, social, affective, memory, and compensation strategies. It was found that all students at this level indicated a greater preference for metacognitive, cognitive and social strategies than for the affective, memory and compensation strategies. Compared to the secondary school levels, good and fair students recorded preference for metacognitive strategies than did the poor proficiency students. It was also found that the self-efficacy beliefs were quite similar and positive across primary, secondary and tertiary level students.

The researchers found, with minor variations for students in the three different levels, as the level of proficiency increases, the correlation between self-efficacy and strategy use decrease. In a similar vein, Dreyer and Oxford (1996) studied the relationship between learning strategies use measured by SILL (Oxford, 1990) and language proficiency as measured by TOEFL scores of 305 Afrikaans first-year university students learning English. The researchers found through regression analysis that 45% of total variance in language proficiency was explained by learning strategy use and the greatest part was accounted by metacognitive strategies. The different strategy use in different levels suggests that certain strategies may be acquired developmentally. As teachers, it is important to investigate how certain

strategies develop overtime. In this way, teachers can better guide the students to use the strategies at different stages in their language learning process. The significant and positive relationship between self-efficacy beliefs and overall use of language learning strategies, with learners from all backgrounds, reveals that it is important for teachers to help learners increase their self-efficacy beliefs. Such increased beliefs may result in the employment of appropriate learning strategies in learners' attempts at becoming effective English language learners.

As reflected in the study by Magogwe and Oliver (2007) primary school, secondary school and tertiary level students may show different strategy use at different ages. Students of the same age group but learning English at different levels may also show differences in their strategy use. More specifically, Sardegna, Lee, and Kusey (2018) investigated the self-efficacy beliefs, attitudes towards pronunciation practice and choice of pronunciation learning strategies by adult learners studying English as a foreign language. It was found that those learners who had high self-efficacy beliefs made an effort to improve their pronunciation by choosing self-selected strategies which they deem important. The results also showed that students who were confident in their pronunciation skills had less anxiety. Additionally, Raoofi and Maroofi (2017) investigated the relationship among self-efficacy beliefs, value beliefs, strategy use and success in writing in the second language with undergraduate students in Malaysia studying English as a second language. The results indicated that self-efficacy, task value and cognitive and metacognitive strategies (for example, rehearsal and critical thinking among others) and effort regulation were related to writing success in English. Those students who had high levels of self-efficacy about their writing ability were found to be more likely to use

writing strategies. The results also indicated, compared to those students who attached low value to the writing task, that those students who place high value on writing in the second language were found to use more metacognitive and cognitive strategies and effort regulation.

There are other studies which revealed that self-efficacy and task values are related to both surface level and deep-level learning strategies. Komarraju and Nadler (2013) examined the motivational orientations, cognitive and metacognitive strategies and resource management in predicting academic achievement of 407 undergraduates. The researchers used MSLQ, Implicit Theories of Intelligence Scale, Achievement Goal Inventory. The researchers also asked the students to report their grade point average. Hierarchical multiple regression was conducted. The results revealed that self-efficacy, effort regulation and help-seeking explained variation (18%) in grade point average. The study also found that self-efficacy and utility value were positively related to rehearsal, elaboration and critical thinking.

Both self-efficacy and utility value have been found to be positively related to surface-level as well as deep-level learning strategies (Prat-Sala & Redford, 2010). Prat-Sala and Redford (2010) examined the interrelationships between intrinsic and extrinsic motivation orientation, self-efficacy beliefs in writing essays and reading, and deep, strategic, and surface strategies of undergraduate students (163 first-year) studying psychology in a university in the UK. Work Preference Inventory, motivation questionnaire, self-efficacy questionnaires (for reading and writing) and the Revised Approaches to Study Inventory were used to understand the interrelationships between these variables. In this study, self-efficacy was found to

relate positively to rehearsal. The results of the study also revealed that students who had low self-efficacy beliefs increased their use of surface approach and decreased the use of deep approaches in time. This could be because a student may view surface level strategies such as memorization or rehearsal as a quick fix to pass exams. In this way, they could also prove that their worth to significant others. Apparently, concerns over one's worth may be an obstacle to the students' academic achievement. It is, therefore, important to encourage learners to value learning because they think it interesting to learn new things.

Varasteh, Ghanizadeh and Akbari (2016) examined the interrelationship among cognitive, motivational and metacognitive variables with 180 English as a foreign language (EFL) learners with B.A. and M.A. degrees. The researchers used MSLQ to assess task value, metacognitive self-regulation, test anxiety and learning strategies. To investigate ambiguity tolerance, the researchers used Ambiguity Tolerance in Second Language Learning Questionnaire (SLAT; Ely, 1995). The results showed that task utility value to be a positive and significant predictor of deep learning, resulting in language achievement. The results also revealed that effective learners use metacognitive and cognitive strategies systematically. Students who were motivated to learn the materials were engaged in comprehending the material. These students were also found to use deep strategies and regulate their learning. Additionally, the results suggest that those who value the tasks do with interest and chose appropriate learning strategies, especially deeper ones. This is in line with research that also revealed that students who attach high value to the task will employ deeper cognitive and metacognitive strategies (Pintrich, 1999; Schiefele, 1992). One noteworthy study which investigated students' language learning

motivation and strategy use in various proficiency levels was Zhang and Xiao (2006). The researchers examined the motivation patterns of EFL students. The participants were 471 tertiary level non-English major students studying at a university in China. The researchers investigated how language learning motivation and strategies are related to EFL proficiency. Two self-report instruments were used in this study: SILL (Oxford, 1990) and The Language Learning Motivation Questionnaire (Schmidt, Boraie, & Kassabg, 1996).

The researchers found nine factors that displayed the Chinese EFL learners' language learning motivation. One of these factors was intrinsic motivation. A second factor that emerged was anxiety. Learning for instrumental reasons, self-efficacy beliefs, sociability, valence, social responsibility, personal goals and attitudes were other factors which emerged. The analysis of the relationship of motivation and learning strategies with EFL proficiency revealed that memory, compensation, metacognitive, affective and social strategies correlated with EFL proficiency while intrinsic motivation showed a weak correlation to EFL proficiency. The results of the study revealed that three proficiency groups used all these five categories of strategies, except for cognitive strategies, differently at a statistically significant level high-proficiency group reported using the metacognitive, affective and social strategies more. However, low-proficiency group reported using compensation strategies most frequently and this was followed by intermediate- and high- proficiency groups. The finding that there is a relationship between motivation and language learning strategy use reveals the important role learning strategies play in language proficiency. It is, thus, important for teachers to introduce and emphasize the role and value of

metacognitive, memory, cognitive, social and affective strategies which can help students reach success in their learning journey.

Focusing on proficiency levels and the utilization of learning strategies, as was examined by Jun Zhang and Xiao (2006) is important. As such one other noteworthy study which investigated the whether learners with different proficiencies have different patterns was conducted by Williams and Burden (1999). The researchers investigated the different attributions for success and failure made by students learning a foreign language and factors that underlie such attributions. The interviews conducted with 10 to 15 year old students learning French revealed that most students viewed external factors such as mark and grades as contributing to their success. The results also revealed that older students attributed their success and failure to ability, level of work and influence of others. More specifically, Williams and Bruden (1999) summarize the reasons as “perceived reasons for doing well” and “perceived reasons for not doing well.” Some of the views students reported as their perceived reasons for doing well were listening and concentrating, remembering, ease of work, trying hard, ability and interest and enjoyment. The students reported that their perceived reasons for not doing well were not listening or concentrating, not working hard enough, lack of revision, effort and ability, dislike of subject and not practicing.

In cases where students experience success and failure, they state their perceived reasons and make attributions. One noteworthy study by Mohammadi and Sharififar (2016) investigated the attributions of Iranian English language learners for their successes and failures in learning English as foreign language. The data was

collected through the administration of the the Attribution Theory for Foreign Language Learners Questionnaire to 200 English language students. The researchers specifically investigated whether attributions to ability, effort, task difficulty or luck were related to gender or proficiency level. The findings revealed that males explained their success and failure through ability. Females, however, referred to luck in explaining their success and failure. In terms of proficiency levels, the researchers found that compared to elementary level learners, advanced learners attributed their success more to ability, effort and task difficulty. The researchers concluded that the students attribute success to being influenced by trying hard, their inner ability and on the difficulty of the exam. The reasons behind why the more proficient students ascribe their failure to lack of effort and task difficulty could be investigated further to guide students better in achieving success in their foreign language learning journey.

Within the Turkish context, Yurtseven, Altun and Aydın (2015) conducted a mixed method study. In this study, the researchers investigated the motivational beliefs of 211 students attending preparatory class of a university, learning English. The researchers used MSLQ for the quantitative part of the study. Qualitative data were collected through two open-ended questions, asking about motivational beliefs of the students. The results indicated that there are significant differences between girls and boys. Girls were found to have higher extrinsic goal orientations, task value and self-efficacy beliefs. The second finding of the study was that there was a significant difference in self-efficacy and test anxiety scores of students with varying proficiency levels. The pre-intermediate and intermediate students possessed higher self-efficacy beliefs than elementary level students. Elementary level students were

found to possess higher test anxiety scores than pre-intermediate students and pre-intermediate students were found to have higher test anxiety scores than intermediate students. The qualitative finding of the study revealed that students were motivated to learn English if the learning atmosphere was enjoyable. The researchers conclude that as English proficiency improves, the students' self-efficacy beliefs increase and test anxiety levels decrease. According to this finding, it can be assumed that the level of the motivation increases when the level of English increases.

Tilfarlioglu and Ciftci (2011) explored the effect of self-efficacy and learner autonomy and the effect of both of these on academic success of 250 preparatory level students in five universities in Turkey. The results revealed that as the students' self-efficacy increases, their tendency for being autonomous learners also increases, suggesting that they were self-regulated learners who employed various learning strategies in the learning process. Research revealed that self-efficacy is a prerequisite to learner autonomy (Schmenk, 2005). The researchers also investigated whether the effect of self-efficacy and learner autonomy on academic success was positive through multiple regressions. The results revealed that both self-efficacy and learner autonomy were significant predictors of academic success, suggesting that those students who are more self-efficacious and autonomous are more successful in learning a language. To investigate the final aim of their research, the researchers conducted linear regression and found that self-efficacy beliefs predicted academic success positively. Within the Turkish context, one of the obstacles, as will be mentioned under "Context" in Chapter 3, is failure to show academic achievement in two years and being dismissed from school due to law. Research as this one and related ones show the importance of encouraging students to have increased sense of



sense of efficacy. As suggested by the result of this research, it is important for students to understand that with high efficacy beliefs they can actually endure in the face of challenges during their studies at university.

Kurum (2011) investigated the role of motivation on achievement in English as a foreign language of 50 third year students studying in the Turkish Military Academy. The students were studying English four hours a week. The researcher used the adapted version of Motivational Scale by Wen and Johnson (1997) to investigate the relationship between students' motivation and language achievement. Among the six questions that guided this study, two of them are of interest to this study. An aim of the research was to look at the association that exists between motivation and language success among the cadets at the academy. Another aim of the study was an investigation of how high proficient cadets differ from low proficient cadets in their motivation. The researcher found a positive correlation between the Turkish students' instrumental motivation and their achievement in English as a foreign language ( $r=.280, p<.05$ ). As per the second aim, the researcher calculated the integrative, instrumental motivation, effort, valence, expectancy and ability of both low and high proficient EFL learners. The results revealed that there is a statistically significant difference between low and high proficient EFL learners in their total motivation. Thus, it was found that based on students' average English grades, the cadet having higher grades were found to be more motivated ( $M=5.14$ ) than cadets with average English grade of 64 or less ( $M=4.69$ ). This research reveals that the motivation to learn a language is mostly instrumental in that the learner learns another language to get better grades. While both integrative and instrumental motivation are essential in language learning success, integrative motivation has been

found to maintain success for long-term (Crookes & Schmidt, 1991; Ellis, 1997).

Teachers should encourage the students to be motivated learn about the target culture and integrate to a new culture rather than merely focusing on grades.

In a recent dissertation study conducted with preparatory students in one of the universities in Turkey, Çağatay (2018) utilized a two phase embedded mixed-methods design to investigate casual attributions made by language learners for their exam performance. In phase one, the researcher investigated learners' attributions of achievement and the relationship between perceived successes, ideal L2 selves and ought-to selves. In the second phase, the researcher investigated the effect of Attribution Retaining (AR) treatment for a selected group of students with maladaptive attributional styles. The results revealed that the main causal attributions for the language learners were health and teacher. In terms of exam scores, task difficulty was found to be the main predictor of previous exam performance. As for future exam scores, the main predictor was effort. The results also revealed that, treatment through AR led to an improvement in learners' locus of control and personal control scores and caused a decrease in stability dimension. Further to this, the results also showed that such training helped students view success as a result of effort and strategy. The results suggest that AR can actually be integrated into guidance programs in ways to help learners make adaptive attributions, which can result in reduction in anxiety levels and increase in performance.

As reflected in research, students with intrinsic interest in tasks tend not only to hold high self-efficacy beliefs (Elliot & Harackiewicz, 1996), but also to ascribe

importance to the task, devote effort in its completion of tasks, and persist until the end (Elliot & Church, 1997; Noels, 2001; Noels, Pelletier, Clement, & Vallerand, 2003; Pintrich, 2000). However, what has not been thoroughly investigated is the role of expectancy and value beliefs, intrinsic reasons for learning versus learning to prove oneself in learning a language. Additionally, it is important to investigate what the relations of these motivators are when they are jointly considered to learning strategies especially in language learning settings where the students are under pressure to pass.

### **Summary**

It can be concluded that value attached to the task, expectancy beliefs in learning and the reasons for which students strive for success are important motivators for academic engagement. For instance, both Pintrich and De Groot (1990) and Wolters and Pintrich (1998) found that self-efficacy and value beliefs correlated with cognitive strategy use and self-regulation. Crede and Phillips (2011) reported that those students who self-monitor and regulate their effort have intrinsic interest in tasks, value them and possess higher levels of self-efficacy beliefs. The researchers, however, caution the user of MSLQ in that removal of certain items by carefully considering the psychometric properties could provide better empirical support for its theoretical structure. Following this line of thought Gbollie and Keamu (2017) adapted and used the MSLQ to investigate the relationship between student motivations and learning strategies. The findings revealed that while intrinsic goal orientations and self-efficacy beliefs positively correlated with organization and critical thinking, test anxiety negatively correlated with rehearsal, organization and critical thinking. More specifically, Sardegna, Lee, and Kusey (2018) found that

those students with high self-efficacy beliefs made an effort to improve their pronunciation and did so by selecting strategies that they think are important. Further, Raoofi and Maroofi (2017) found that students who possess high levels of self-efficacy about their writing ability and attach high value to writing were more likely to use more metacognitive and cognitive strategies and effort regulation. Magogwe and Oliver (2007) found that students at tertiary level prefer metacognitive, cognitive and social strategies over affective, memory and compensation strategies.

Komarraju and Nadler (2013) also found positive relationship between self-efficacy and utility value and rehearsal and critical thinking. Prat-Sala and Redford (2010) also found self-efficacy to relate positively to surface level strategy use and Varasteh, Ghanizadeh and Akbari (2016) found utility value to be a positive and significant predictor of deep learning. Research has shown that students who seek challenge are more engaged in the learning process (Vansteenkiste, Niemiec, & Soenens, 2010) and achieve better success in their studies (Lepper, Corpus, & Iyengar, 2005) than those who may study to prove their worth to others.

Williams and Burden (1999) investigated the different attributions made by students for their success and failure and found that older students attributed their success and failure to the influence of others as they try to prove their self-worth in addition to the ability and level of work. In similar lines, within the Turkish context, Kurum (2011) also found that students having higher grades were found to be more motivated than students with average English grade, showing that students learn a language mostly for instrumental reasons as it is important for them to prove their

self-worth. Unfortunately, contrary to the intrinsically motivated students, those who seek to be successful at a task mainly to prove their worth to significant others may be in a more disadvantaged position (Ryan & Deci, 2017; Noels et al., 2003).

Additionally, Mohammadi and Sharififar (2016) found that students attribute their success as being influenced by hard work, inner ability and exam difficulty.

Jun Zhang and Xiao (2006) investigated the relationship between motivation and learning strategies with EFL proficiency and found that students in high proficiency group used metacognitive, affective and social strategies. Students in low-proficiency group used compensation strategies. In the Turkish context, Yurtseven, Altun and Aydın (2015) also investigated the motivation of the English language learners in various proficiency levels. The researchers found that as the level of English proficiency improves, self-efficacy beliefs increase and test anxiety level decreases. Another study within the Turkish context was conducted by Tilfarlioglu and Ciftci (2011) who found that as self-efficacy beliefs increase, the students become more autonomous in their strategy use. A more recent study within the Turkish context by Çağatay (2018) revealed that task difficulty serves as the main predictor of previous exam performance and that effort and strategy can lead to success.

## **CHAPTER 3: METHODOLOGY**

### **Introduction**

The overall purpose of this study is to examine a number of influences, namely the relationship between motivational constructs and learning strategies that are theorized to affect language learning progress of students studying in a Preparatory Program of a university. The four-phased framework of self-regulated learning by Pintrich (2000), inspired by social cognitive theory, provided the conceptualization of a motivational and learning strategies model for the current study and thus helped shape the research questions listed below. It is important to note that because of the exploratory sequential mixed methods case study research design nature of this research, the questions were revisited and revised after the qualitative data was collected. This helped to specify the motivational constructs and learning strategies to be included in quantitative data analysis. The initial research questions of the study were as follows before the revision.

1. How do students who succeed or fail a level in a preparatory program perceive themselves as language learners?
  - a. Which specific aspects of the motivational components do students report as being influential in their language learning experience?
  - b. What specific reasons are given by students to explain their perceived success and failure in learning English?

- c. Which specific learning strategies do students report using in their language learning experience?
2. To what extent do reported motivational components as reflected by preparatory program students relate to their reported learning strategy use and affective factors?
  - a. How do these relations differ across students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?
3. To what extent do motivational components as reflected by preparatory program students relate to their reported learning strategy use and affective factors in the presence of reported reasons for learning?
  - a. How do these relations differ across students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?
4. To what extent do reported motivational components as reflected by the preparatory program students relate to their reported learning strategy use and to their affective factors in the presence of reported reasons for learning?
  - a. How do these relations differ across students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?

### **Research design**

The study was initially considered a fixed mixed methods design as the use of both “quantitative and qualitative methods [were] predetermined and planned at the start of

the research process” (Creswell, 2013, p. 54). The initial phase of the study was designed to concurrently collect quantitative data through a MSLQ (Pintrich & De Groot, 1990) and qualitative data through semi-structured interview. However, once the pilot study was conducted using the whole MSLQ questionnaire (Appendix A), the planned procedures were revisited, the discussion of which is provided below. The reflections from the pilot study led to the decision to implement a sequential design “in which the conclusions that are made on the basis of the first strand lead to formulation of questions, data collection and data analysis for the next strand” (Mertens, 2010, p. 300). Subsequently, this study utilized an exploratory sequential mixed methods case- study research design based on the reflections from the pilot study.

Case study methodology is a strategy of inquiry (Stake, 1995) in which the researcher investigates “a contemporary phenomenon within its real context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used” (Yin, 1994, p. 23). Mixed methods research is defined as collection and analysis of qualitative and quantitative strengths of data in a single research study, with both strands of data integrated – either concurrently or sequentially – to address the research question (Creswell & Plano Clark, 2011). The exploratory sequential mixed methods case-study research was selected to explore and understand the phenomenon qualitatively first and then through quantitative data collection.

The case for the current study was students from varying status in the preparatory program as explicated under participants. The phenomenon under investigation was



university level undergraduate students' perceptions of the reasons for their success or failure in the language learning process in the preparatory program. Thus, the research question for the qualitative part of study inquired into "how" the students who succeed or fail a level in the preparatory program perceive themselves as learners of English. The purpose in this case study was to understand the perceptions and the experiences of the preparatory program undergraduate level students in learning English. The quantitative phase of the study investigated "what" the relationships were among the identified motivational constructs and learning strategies.

In the first phase, the qualitative data was collected through face-to-face semi-structured interviews and analyzed. Themes from the analysis were used to guide the scale selection from the quantitative instrument to further explore the research problem (Creswell & Plano Clark, 2011; Onwuegbuzie, Bustamante, & Nelson 2010). In the second phase, quantitative analysis was conducted based on the analysis of the qualitative data, allowing one form of data to play supportive role to the other form of data (Creswell, 2013).

The qualitative approach involves studying things in their natural setting to make sense of the phenomena and interpret it with reference to the meaning people bring to the phenomena (Denzin & Lincoln, 2000). The qualitative phase provided an in-depth understanding in terms of participants' lived experiences (Jones, Torres & Arminio, 2006) with reference to their reports on the success and failure they

experience in learning English. The preliminary analysis of the semi-structured interviews provided an opportunity for participants to articulate their perceptions and experiences.

In this study, the detailed accounts provided by the participants in the qualitative phase allowed to “identify important variables to study quantitatively... and then measure its prevalence” (Creswell & Plano Clark, 2007, p. 75). Creswell and Plano Clark (2007) suggest that the quotes or statements from the qualitative data can be coded into themes that can then represent scales and constructs on the instrument. Thus, the scales and related items were chosen from the MSLQ (Pintrich & De Groot, 1990) based on the qualitative data analysis and the theoretical foundations in previous literature regarding motivation and learning strategies employed by learners.

In this study, based on the results of the qualitative analysis, quantitative data analysis enabled for exploration of the relationship among motivational components and learning strategies as reported by the students. The numeric descriptions as to the attitudes and opinions of the participants under these constructs were gathered from the participants in the study through survey approach (Creswell & Miller, 2000) using certain scales from MSLQ (Pintrich & De Groot, 1990). The following procedures for implementing exploratory design proposed by Creswell (2013, p. 88) were followed in the current study. Before the design and implementation of qualitative strand, a pilot study was carried out, the details of which are discussed below. Figure 1 provides the procedures.

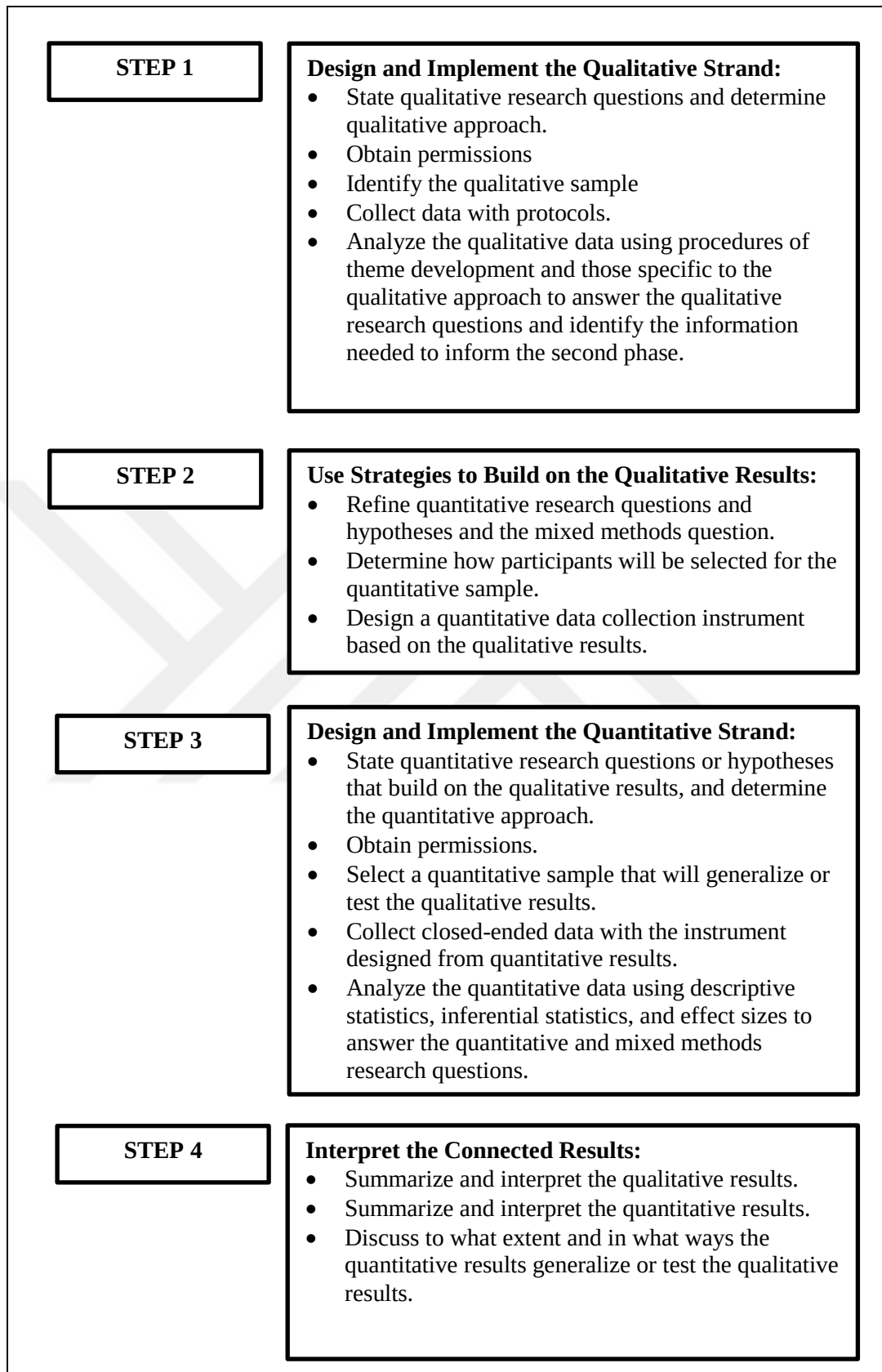


Figure 1. Procedures of the study

### **Context for the study**

All Turkish students have to take the national university entrance exam to be placed in either public or private university. Those students who choose to study in an English medium university and are eligible to enroll in the chosen university are required to take the English placement and proficiency exam before they can study in their respective departments. It is only those students who pass the cut score that reflects a proficient user of English go to their respective departments for their studies. However, those students who cannot pass the cut score are placed in differing proficiency levels in accordance with their exam scores and study in the preparatory program.

This study was conducted in the preparatory program of one of the non-profit, private universities in Ankara, Turkey. The university in which this study was conducted is an English-medium university. The preparatory program upholds the mission of ensuring that the students attain a level of proficiency in English to continue their studies in their respective departments and life after university. The placement test places students at a proficiency level based on the descriptors in CEFR, which “describes in a comprehensive way what language learners have to learn to do in order to use a language for communication and what knowledge and skills they have to develop so as to be able to act effectively” (Council of Europe, 2001, p. 1). The university offers a preparatory year in which students study only English language in accordance with the levels they have been placed through an initial proficiency exam. If the students can pass this proficiency exam, they can continue their studies in their departments. At the time of the study, there were six levels in the preparatory program: beginner, elementary, pre-intermediate,

intermediate, upper-intermediate and pre-faculty. With reference to CEFR, the beginner level corresponds to A1, elementary level to A2, pre-intermediate level to A2+, intermediate level to B1, upper-intermediate level to B1+ and pre-faculty level to B2 (Council of Europe, n.d.) (see Appendix B)

While the beginner and elementary level students have almost no control over language skills and systems, at the pre-intermediate level the learners know only basic academic English language skills. At intermediate level, learners are aware of academic English language skills but need to improve them. At upper-intermediate level, learners have good command of the language but need to further refine their academic language skills; and at pre-faculty level, learners have reached a level of fluency but need to solidify it to cope with the demands of their studies in their faculties.

During their study in their respective levels in the preparatory program, students receive an average of 25 hours of instruction with emphasis on the academic skills of writing, reading, listening, and speaking as well as grammar and vocabulary. The students are expected to show that they have mastered language skills and systems for the level they are studying before they can move to the next level. The students are required to progress through these levels and complete pre-faculty level successfully in order to take the institutional proficiency exam in English. The students can also take proficiency exams such as IELTS or TOEFL exams to prove their proficiency. The students can only continue their studies in their respective departments if they pass these exams. Entry to undergraduate program would require a score that approximates to a B2 on CEFR. If the students cannot complete the Pre-

Faculty level and pass the proficiency exam in two years, they are dismissed. This means that they cannot continue their studies in their departments and are thus dismissed from the university. To exemplify, a new student who has been placed at A2+ level receives 8 weeks of instruction at the Pre-Intermediate level. During the 8 weeks of instruction, the student needs to attend 90% of the classes, collect 60% out of two achievement tests and 60% from online components, portfolio tasks, in-class quizzes and homework (out of 100%). Upon the successful completion of all these requirements, the student becomes eligible to sit the end of course assessment. The end of course assessment at the end of instruction is a standardized achievement test which serves as the most important measure of student performance as it supplies the evidence needed to interpret students' knowledge and skills and make high-stakes decisions of enabling the student to study in the next level.

In order to be able to study in the next level, the student needs to get a final course grade of 60%. If the student fulfils the requirements and passes the end of course assessment, the student can move on with his/her studies in the next level. Thus, the student who started at Pre-intermediate level (A2+) moves onto the next level (i.e. Intermediate level, B1) and receives 8 weeks of instruction at this level. If a student cannot fulfil course requirements and thus is non-eligible to sit the end of course assessment, the students repeats the same course for 8 weeks. If a student is eligible to sit the end of course assessment, but cannot get a final course grade of 60%, the student repeats the same course in a condensed way for 4 weeks. In these two types of situations, the student is considered to be repeating the level. Within the preparatory program, the students can, thus, be classified into three groups: non-repeaters (i.e., those who never repeated a level), past-repeaters (i.e., those who had failed in one or

more of the past period of instruction) and current repeaters (i.e., those who are currently repeating a level). These groups define the status of the students in this study. Further explanations with regards to the status are provided under “Participants” section.

### **Participants**

The present study uses data that is collected from the English language preparatory program in a non-profit, private university in Ankara, Turkey. The target population of this study consists of all students studying at this English Language preparatory program in the university in which the study is conducted. This study utilizes purposive sampling (Mills, Durepos, & Wiebe, 2009). For the purposes of this study, Pre-Intermediate, Intermediate, Upper-Intermediate and Pre-Faculty level students, studying in their respective levels in 2015-2016 academic year, spring semester, served as sample for the study.

For the qualitative part of the study, semi-structured interviews were conducted with volunteering students. Students with levels ranging from Intermediate to Pre-Faculty, status ranging from zero repetition to six repetitions, were approached to ask if they would like to volunteer to take part in the study. Out of the 18 students, 15 of these students took part in the study. Of the 15 students, there were five students who were non-repeater students, five who were past-repeaters and five who were current-repeaters. Table 2 shows the distribution of the participants.

Table 2  
Characteristics of the participants in the semi-structured interview

| Status            | Student | Progression Through Levels <sup>a</sup> | Current Level <sup>a</sup> |
|-------------------|---------|-----------------------------------------|----------------------------|
| Non-repeating     | # 1     | I > UI > Pre-F                          | Pre-F                      |
|                   | # 2     | I > UI > Pre-F                          | Pre-F                      |
|                   | # 3     | E > Pre-I > I                           | I                          |
|                   | # 4     | B > E > Pre-I > I > UI                  | UI                         |
|                   | # 5     | B > E > Pre-I > I > UI                  | Pre-F                      |
| Past-Repeaters    | # 6     | E > Pre-I (2) > I (1) > UI              | UI                         |
|                   | # 7     | I > UI (1) > Pre-F                      | Pre-F                      |
|                   | # 8     | Pre-I (1) > I (1) > UI (1) > Pre-F      | Pre-F                      |
|                   | # 9     | E > Pre-I (2) > I > UI (2) > Pre-F      | Pre-F                      |
|                   | # 10    | B > E > Pre-I > I (1) > UI              | UI                         |
| Current-Repeaters | # 11    | Pre-I > I (6)                           | Repeating I                |
|                   | # 12    | Pre-I (1) > I > UI > Pre-F (2)          | Repeating Pre-F            |
|                   | # 13    | Pre-I > I (2)                           | Repeating I                |
|                   | # 14    | Pre-I > I > UI (2)                      | Repeating UI               |
|                   | # 15    | B > E > Pre-I (1) > I (2)               | Repeating I                |

<sup>a</sup> B: Beginner, E: Elementary, Pre-I: Pre-Intermediate, I: Intermediate, UI: Upper-Intermediate, Pre-F: Pre-Faculty. The number in parenthesis indicates the number a given level was repeated.

The students in the non-repeat group did not repeat any level since their entry to the preparatory program. They had successfully completed their studies in the previous level and progressed. The students in the past repeat group had repeated a level a prior, with some repeating a level once and at most three times. The students in the current repeating group had repeated a level at least twice and at most six times. These students were still repeating a level.

For the quantitative part of the study, those students who accepted to volunteer to take part in this research signed an informed consent and took the scales from the MSLQ survey. The total number of students in these levels was around 1300. The sample of this study was 1009 students (476 female and 533 male), studying at



different levels in the preparatory program of the university. The ages of the selected sample ranged from 17-20 ( $M_{age}=19.14$  years;  $SD= 1.08$ ).

Demographic information about year of entry, level, levels repeated and past language achievement grades in the program was collected from the students through the cover page of the questionnaire. Those students who did not want to state this did not fill in this section. The number of times the students repeated the levels was of importance as this enabled the researcher to classify the students into groups. The first group included students who successfully progressed in their studies and experienced no failure in any of the previous levels (non-repeaters;  $N=328$ ). The second group consisted of students who had failed in one or more of the past period of study (either one or multiple times) and thus they had had to repeat that level (or those) levels at the time because of rules and regulations (past-repeaters;  $N=441$ ). The third group included student who failed and therefore were repeating the current period of study at the time of data collection (current-repeaters;  $N=215$ ). The number with regards to the status does not add up to 1,009 because some participants stated their gender but did not state their status, which resulted in missing data. Table 3 shows the study's sample by gender and status in the quantitative phase of the study.

Table 3  
Gender and status of students within the preparatory program

|   | Gender |        | Status        |                |                   |
|---|--------|--------|---------------|----------------|-------------------|
|   | Male   | Female | Non-repeaters | Past-repeaters | Current-repeaters |
| n | 533    | 476    | 328           | 441            | 215               |
| % | 52.8   | 47.2   | 32.5          | 43.7           | 21.3              |

## **Instrumentation**

The data collection for this study was done in two phases. For qualitative data collection, semi-structured interviews were used. The qualitative phase was prior to the quantitative phase and thus guided the quantitative data collection phase. For the quantitative data collection MSLQ was used. The demographic information was gathered during the semi-structured interview and through the cover page of the questionnaire. Information about both qualitative and quantitative instrument is provided below.

### **Qualitative instrument**

The purpose of the semi-structured interview with individual students of varying status was to seek possible explanations of students' perceptions of their language learning process in the preparatory program with reference to their success and failure. The interviews were carried out with the aim of learning the motivation and learning strategies of the students. The initial semi-structured interview protocol can be viewed in Appendix C.

The questions were developed by the researcher based on the literature review. The initial questions in the interview served to elicit demographic information. Following this, there were other questions which referred to students' motivation. There were other questions referring to the students' plans. Additionally, there were also questions which referred to the learning strategies the students used. Moreover, there were a few questions that referred to the stress the students may experience due to

their studies. Such exploratory interview was intended to guide scale selection for the quantitative data collection.

### **Quantitative instrument**

The original version of the MSLQ developed by Pintrich and De Groot (1990) was used in this study. This version was based on the social-cognitive framework of motivation and learning in line with expectancy-value framework (Eccles & Wigfield, 2002) and SDT (Deci & Ryan, 2000, 2002). The original MSLQ consists of 15 subscales, 81 items with 7-point Likert scale (1 and 7). The 15 subscales can be used individually or collectively (Duncan & McKeachie, 2005). There are two parts in this questionnaire: a motivation and a learning strategies section (see Appendix A).

The motivation section includes six motivation subscales: intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance, and test anxiety. The learning strategies section includes nine learning strategy subscales: rehearsal, elaboration, organization, critical thinking, metacognitive self-regulation, time and study environment management, effort regulation, peer learning and help seeking. The participants are provided with a Likert scale and circle 7 for statements that are “true of themselves” and 1 if the statement is “not at all true of them.”

Based on the interview data, review of literature and related research, only certain constructs from the MSLQ was chosen as an instrument to measure the hypothesized relationships for this study. Specifically, test anxiety, study efforts (i.e. effort

regulation), surface level strategy og rehearsal and deep-level learning strategies of critical thinking and metacognitive self-regulation subscales as well as the motivational constructs of task value, intrinsic goal orientation, extrinsic goal orientation and self-efficacy beliefs subscales were used. The subscales and related items can be seen in Appendix D.

These constructs investigated in this study were selected based on the qualitative exploration of the students' perceived success and failure in their language learning experience, literature review on foreign language learning conducted in Chapter 2, concerning value and expectancy, reasons for learning, learning strategies and affective concerns. The version of the questionnaire used in this study from the MSLQ can be viewed in Appendix E.

Although these scales appear in the research literature frequently, there are a number of statistical issues with the task-value component, intrinsic goal orientation, extrinsic goal orientation and self-efficacy beliefs. There is some debate in the literature as to whether components of these task value and intrinsic goal orientation are distinguishable. Additionally, there is debate over the exact meaning of extrinsic goal orientation and more specifically, some refer to different constructs rather than one extrinsic construct (Grant & Dweck, 2003; Vansteenskiste, Lens, Elliot, Soenens, & Mouratidis, 2014). Items under self-efficacy beliefs also need consideration as to which items pinpoint into self-efficacy beliefs (Liu, Wang, Koh, Chye, Chua, & Lim, 2012). Thus, these constructs were revisited keeping in mind the statistical issues before the administration of the questionnaire.

### **Method of data collection**

This exploratory sequential mixed methods design involved collecting qualitative data first and then explaining qualitative results through in-depth quantitative data. Thus, the qualitative part of the study was conducted prior to the quantitative study. This section provides an overview of the piloting stage, the semi-structured interview for qualitative data collection and the questionnaire used for quantitative data collection.

#### **Piloting stage: quantitative and qualitative data collection**

Before choosing a research instrument in a research study, it is important to test it or try it out (Creswell, 2013). To achieve reliable data with content and construct validity of instrument, a pilot study was conducted for both the semi-structured interview and the questionnaire.

The semi-structured interview was initially piloted at the beginning of 2015-2016 academic year, in the fall semester, with two students to ensure clarity of the questions and to revise as necessary. For the validity of the interview questions, two experts from the university assessed the questions. Additionally, two colleagues were asked to review the questions to be able to assess the face validity. Based on these reviewers' suggestions, the questions were revised. Table 4 provides feedback from the reviewers and the two students and related actions.

Table 4

Reflections by the reviewers and the students on the interview questions and related actions

| Feedback                                                                                                                                                                                                                                                                                                                                                                                               | Action taken                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The reviewers questioned whether it was necessary to ask the “Which three adjectives would you use to describe yourself?”                                                                                                                                                                                                                                                                              | The purpose of the question was to serve as an ice-breaker. For this question, follow up questions were noted down to be used during the interview. The feedback was kept in mind during the interview with the students.                                                                            |
| A related concern regarding the follow up question to the above question was observed during the pilot interview with one of the students (i.e., Please give me some examples of yourself as..X..?; Does ..X.. characteristics help you in language learning? If so, how?). These follow up questions required students to relate this adjective to how it affects their language learning experience. | During the pilot interview, the students could answer the question. A decision was made that in cases where the students could not connect the adjective to language learning experience, the interviewer would move on with the next question.                                                      |
| One of the reviewers stated that a revision to the wording of the following question could make it clearer “How do you think your perception of yourself has changed since you started Preparatory Program?” During the piloting with the students, one of the students also wanted clarification on this particular question.                                                                         | This question was changed to “What differences do you notice between you as a high school student and university Prep Program student?” In the interview with the students, this item was further revised as “You as a high school student and you as university student. What are the differences?” |

The MSLQ questionnaire were first translated from English into Turkish by the researcher (a native Turkish speaker who is a teacher, teaching English for Academic Purposes at tertiary level). The questionnaire was then backtranslated to English by a panel of experts (consisting of three experts specialized in the field of language teaching). In the next phase, the researcher and the group of experts compared the original English and the backtranslated version and suggested amendments to the translated version accordingly.

For the piloting of the questionnaire, three teachers who have 15-17 students in their classes were approached to get consent for the questionnaire to be administered in their classes. Once consent was sought, the teachers were provided with further information to explain the rationale for the research so that they could inform their

students. An “Informed Consent Form” explaining the purpose of the research and assuring confidentiality was given to the students (see Appendix F) by the teachers.

A pilot study with 30 participants was conducted by the researcher to receive feedback from the respondents on the comprehensibility of the wording of the items. The piloting took place in the 2015-2016 fall semester before the questionnaire was administered to the participants of the study in the spring semester. Those students who volunteered to participate in the study signed the “Informed Consent Form.”

In order to assess the reliability of the instrument, initial internal consistency reliability estimates were conducted for MSLQ. The alpha reliability of the items in MSLQ with value, expectancy and affect and learning strategies of cognitive, metacognitive and resource management in the pilot study were found to be acceptable (Cronbach's Alpha= .78).

Table 5 provides the synthesis of the feedback and related actions taken. The items were revised in light of the feedback received from the panel of experts and the results of the pilot study. Based on the pilot study and literature review, an exploratory sequential mixed methods case study research design was used for the purposes of this study. In this way, it was possible to focus on only items that were reflected on, in the qualitative phase by the students within the context of this study. The qualitative and quantitative phases of the study are presented below

Table 5  
Pilot study feedback and actions taken

| Feedback                                                                                                                                                                                                                                                                                                                                                                                                                                       | Action taken                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A student reflected that he did not know what to choose for one of the questions under metacognitive self-regulation. The question reads “I often find that I am reading for my classes but I don’t know what it was all about.” He stated that he did not know what to choose for this question because he does not read for his classes and reflected “Of course, this is me.”</p> <p>The students found the questionnaire very long.</p> | <p>This comment reflected that the student prefers not to read before class. It is possible that this is true for other students. Within the Likert scale, scale 1 “Not at all true of me” may be chosen by some students. The item was not changed, but it can be considered under limitations section of this study.</p> <p>The researcher aimed to explore the relationship of some of the motivational constructs and learning strategies. Not all the questionnaire items were intended to be used in the study. Keeping in mind that the study design is exploratory sequential mixed-methods case-study research design, not all scales will be included. Once qualitative data guides quantitative data and thus item selection, the questionnaire will be shorter and require shorter time to complete.</p> |
| <p>A student was concerned that information regarding his current and repeated level could be communicated to his parents.</p>                                                                                                                                                                                                                                                                                                                 | <p>The initial consent letter was in English. The consent letter included Turkish translation of the English letter so that all students who volunteer to be involved could understand the information related to confidentiality.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### Phase one: Qualitative phase

A semi-structured interview with set of questions was conducted with 15 volunteering students in English. Sampling decisions were based on purposeful sampling as it includes information-rich cases for in-depth analysis and decisions regarding sample subjects were made according to pre-set criteria (Mills, Durepos, & Wiebe, 2009). The interviews were conducted with non-repeating, past-repeating and current repeating students. The initial samples were chosen at an early stage through sampling and the other samples were selected according to the needs emerging from the data through theoretical sampling (Mills, Durepos, & Wiebe, 2009). Volunteers from other groups were asked if they would like to volunteer for the purposes of “further elaborating and substantiating the categories developed in the analysis so far” (Flick, 2013, p.10).



### **Transition from qualitative to quantitative phase**

The qualitative data collection served to explore themes and guided the quantitative data collection. Based on the qualitative data analysis, this study was designed to investigate the relations of utility value, self-efficacy beliefs, intrinsic reasons and self-worth concerns to effort regulation, rehearsal, critical thinking and metacognitive self-regulation as well as test anxiety of the Turkish students, studying in the preparatory program of the university. Thus, the quantitative research questions were revised as follows:

Research question 2: To what extent do preparatory program students' task related beliefs (i.e. utility value), expectancy beliefs (i.e. self-efficacy) relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?

Research question 2a: To what extent do utility value by self-efficacy interactions relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?

Research question 2b: How do these relations differ across preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?

Research question 3: To what extent do preparatory program students' task related beliefs (i.e. utility value), expectancy beliefs (i.e. self-efficacy) relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety) in the presence of intrinsic reasons and self-worth concerns?

Research question 3a: To what extent do intrinsic reasons by self-worth concern interactions relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?

Research question 3b: How do these relations differ across preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?

### **Revised research questions**

The revised research questions for both the qualitative and quantitative phase are as follows:

1. How do the students who succeed or fail a level in the preparatory program perceive themselves as language learners?
  - a. Which specific aspects of the motivational components do the students report as being influential in their language learning experience?
  - b. What specific reasons are given by the students to explain their perceived achievement (i.e., success versus failure) in learning English?
  - c. Which specific learning strategies do the students report using in their language learning experience?
2. To what extent do preparatory program students' task related beliefs (i.e. utility value), expectancy beliefs (i.e. self-efficacy) relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?

- a. To what extent do utility value by self-efficacy interactions relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?
  - b. How do these relations differ across preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?
3. To what extent do preparatory program students' task related beliefs (i.e. utility value), expectancy beliefs (i.e. self-efficacy) relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety) in the presence of intrinsic reasons and self-worth concerns?
  - a. To what extent do intrinsic reasons by self-worth concerns interactions relate to learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and affective factors (i.e. test anxiety)?
  - b. How do these relations differ across preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters)?

## **Phase two: Quantitative phase**

The questionnaire with motivational constructs of task value, intrinsic goal orientation, extrinsic goal orientation and self-efficacy beliefs as well as test anxiety, effort regulation, rehearsal, critical thinking and metacognitive self-regulation subscales from MSLQ (see Appendix E) was administered to 1,009 studying at the preparatory program of the university. The students' age ranged from 18 to 21

( $M_{\text{age}} = 19.14$  years;  $SD = 1.08$ ). The questionnaire was administered at the end of the second semester of 2015-2016 academic year. The students' levels ranged from pre-intermediate to pre-faculty. That is, there were students studying at pre-intermediate, intermediate, intermediate, upper-intermediate and pre-faculty levels. Initially, approval was sought from the university ethic committee. Then, approval from the preparatory program ethics committee was sought. Upon approval, those teachers who would volunteer were approached. In a meeting held with these teachers, the pupose of the research was clearly explained. Only those instructors who gave consent was handed out the questionnaire. The questionnaire included a cover letter and an informed consent form (see Appendix F). It was reiterated by the instructors and through the cover letter that only those who wanted to participate would participate in the study and that the responses would be confidential. Those students who wanted to participate in the study signed the informed consent form.

The questionnaire items were on a seven-point Likert type format (1= *Not at all true of me*; 7= *Totally true of me*). For the purposes of this study certain items taken from the subscales from (Pintrich & De Groot, 1990), were used. The subscales and related items are presented in Appendix D. The students were given 20 minutes to complete questionnaire. The students initially completed the background questionnaire eliciting data regarding students' gender, age, major, year of entry to preparatory program, current and repeated levels and their last exam score.

Following this, they read the statements and circled 7 for statements that are true of themselves and 1 if the statement is not at all true of them. If the statement is more or less true, the students are required to choose 2 and 6 that best describes them.

### *Justification for items used in the study*

Several studies have proposed that the original version of MSLQ seems to suffer from some psychometric problems. Also, as stated by Rotgans and Schmidt (2009), “although the MSLQ has been portrayed as a reliable and valid instrument and has been used in a variety of studies across various courses, content areas and courses.... a closer examination of its psychometric properties suggest there is room for improvement” (p. 360). Setting aside these problems; however, a meta-analysis conducted by Credé and Phillips (2011) has shown that the various subscales of MSLQ are quite valid predictors of academic performance, suggesting that MSLQ as a scale still carries some positive qualities. Based on a review of prior literature, relevant research and thematic analysis of the semi-structured interviews, scales from the existing instrument, the modified version of original MSLQ (Pintrich & De Groot, 1990) was deemed appropriate to be used in the Turkish educational context. Items from the motivational section included items from the subscale of intrinsic goal orientation, extrinsic goal orientation, value beliefs and self-efficacy, and test anxiety. Items from the learning strategies section included items from the subscales of rehearsal, critical thinking, metacognitive self-regulation, effort regulation.

In MSLQ, there are 6 items which assess task value. However, three items were used as indicators of utility value. The other items were excluded as they referred to intrinsic reasons as well as utility value. The reason for this was that these referred to both utility value and intrinsic reasons. Other researchers have also carried out research by assessing intrinsic reasons separately from utility value (e.g., Durik & Harackiewicz, 2007; Hulleman et al., 2010) Additionally, items under intrinsic goal orientation (items 1, 16, 24) were found to load onto task value (items 4, 10, 17, 23,

26, 27) (Wilson, 2006). While intrinsic reasons refer to challenge seeking, utility value can enable learners to deepen their interest and seek repeated engagement in the subject matter (Renninger, 2000). Linnenbrink (2005) explored the factor structure of task value and found that task value was broken down into two subcomponents: interest and utility. Therefore, in this study, a distinction between valuing tasks (i.e., utility value) and challenge seeking (i.e., intrinsic reasons) is made.

For self-worth concerns, the item that was used was highlighted the importance of showing one's ability to their family and friends. This item reflects a desire to show one's ability to others due to psychological pressure. It is different from other items in the extrinsic motivation subscale in that other items refer to different constructs (Grant and Dweck (2003; Vansteenkiste, Lens, Elliot, Soenens, & Mouratidis, 2014). In other words, this item is the only item underlying the extrinsic construct which reflects the experiences of the participants in the present study.

For self-efficacy beliefs, only five items (Pintrich & De Groot, 1990) were used. The structural validity of MSLQ was conducted through several validation studies. The factor structure presented by the developers of the instrument (Pintrich & De Groot (1990) was not confirmed, suggesting that self-efficacy scales needed revision with omission of at least one item because of its highly skewedness (Hamilton & Akhter, 2009; Liu et al., 2012). As Bandura (2006) notes "scales of perceived self-efficacy must be tailored to the particular domain of functioning that is ... of interest" (p. 308). In this study, guidelines for construction of self-efficacy scales developed by

Bandura (2001, 2006) was used. Accordingly, preliminary work was carried out through semi-structured interviews and pilot questionnaires to identify and build the challenges and impediments to the efficacy items.

As can be observed in the Cronbach alpha below, utility value ( $\alpha = .68$ ), intrinsic reasons ( $\alpha = .52$ ), and effort regulation ( $\alpha = .60$ ) showed marginal internal consistency. Also, along with the marginal internal consistency, the use of single item to assess self-worth concerns may pose some threat to the construct validity of these concepts. The relatively poor Cronbach alpha for utility value and intrinsic reasons is partly due to the few number of items that were used. On the basis of the small number of items in the utility value subscale (3 items) and intrinsic reasons (2 items), the observed low alpha is deemed acceptable (Hair et al., 1998). As for the four-item effort regulation subscale, this is most likely due to the presence of two items that are positively worded and two items that were reverse-worded. This is perhaps the reason for which many studies have found a similar, relatively poor Cronbach alpha for this particular scale. As Credé and Phillips (2011) have indicated in their meta-analysis, the mean reliability for the effort regulation is .61 with its standard deviation being 0.10. As for using the pair of items to tap into intrinsic reasons, based on literature review and getting a Cronbach alpha of .52 is not so unrealistic. However, this will be recognized in the limitation section. The same applies to the way self-worth concerns were assessed. There is research that supports the use of single-item measures as other items in the scale may exclude the key facets that the variable of interest possesses (Postmes, Haslam, & Jans, 2013; Scarpello & Campbell, 1983). For the purposes of this study, the researcher is interested in a construct which reflected the psychological pressure students experienced to do well

in class due to self-worth concerns as the other items under the original extrinsic goal orientation scale denote students' desire to get a good grade and perform better than others. In this study, the MSLQ instrument was factor analyzed via confirmatory factor analysis, the results of which are shared within this chapter.

## **Method of data analysis**

### **Qualitative data analysis**

The analysis of the qualitative data gathered through semi-structured interviews was guided by three aims as described by Flick (2013). The first aim was to describe the "subjective experiences" of non-repeating, past repeating and current repeating students. This would allow for a deeper understanding by investigating the participant's commonalities and differences in the perceptions and experiences of the students with regards to their motivation and use of strategies in learning a foreign language. The second aim was to "look for explanations for inferences" and the final aim was to "develop a theory of the phenomenon under study from the analysis of empirical material" (Flick, 2013, p. 6).

During the semi-structured interviews, a digital audio recorder was used to record the interview. Each interview last approximately 20 minutes. The interviews yielded 9,217 words of data. The recordings were transcribed for non-repeating, past-repeating and current- repeating students to be used by Linguistic Inquiry and Word Count 2015 Software (LIWC; Pennebaker, Booth, & Francis, 2007) and qualitative data coding software, R package for Qualitative Data Analysis (RQDA; Huang,



2011). The transcriptions can be found in the appendices for non-repeating (see Appendix G); past-repeating (see Appendix H) and current-repeating students (see Appendix I).

Following transcription, qualitative research procedures were followed (Goetz & LeCompte, 1984). The first step included reading the data reiteratively. The data was then put on LIWC (Pennebaker, Booth, & Francis, 2007). LIWC is an application which relies on “an internal default dictionary that defines which words should be counted in the target text files” (Pennebaker, Boyd, Jordan, & Blackburn, 2015, p. 1). In the analysis of a text, words in the text are analyzed with reference to the LIWC2015 dictionary file and allocated to the 80 categories defined by LIWC.

The dictionary within the LIWC software includes 3,239 words under affective processes, 1,209 words under social processes, 1,578 words under cognitive process and 783 words under perceptual processes. Additionally, 2,305 words under drives, 862 words under time orientation and 840 words under personal concerns are included (Pennebaker, Boyd, Jordan, & Blackburn, 2015). For the purposes of this dissertation, only some categories, specifically psychological process categories, is used. The categories include affect (positive emotions, negative emotions, anxiety, anger, sadness); social processes (family, friend, female, male); cognitive processes (insights, causal, discrepancies, tentative, certainty, differentiation, perceptual process, see, hear, feel); drives (affiliation and achievement); time orientation (past, present and future focus) and personal concerns (work, leisure, home and money). The LIWC can provide counts of words under these psychological process categories. However, it does not provide contextual meanings. Therefore, these

categories were then used to guide the content analysis. For the purposes of content analysis, the data was loaded to R Qualitative Data Analysis (RQDA) Package.

An inductive content analysis approach was used as the categories were derived from the data (Elo & Kyngäs, 2008). In carrying out the content analysis, the transcripts were read several times, rigorously and systematically. Once the familiarity with the text was achieved, the transcripts were read, notes and headings were written in the text. The interview transcripts were re-read line by line so as to examine “every single part of the material that is in any way relevant to the research question” (Schreier, 2014, p.171 in Flick, 2013). The transcripts were read again and again generating categories until no additional ones could be ascertained (Burnard, 1991). The categories were mutually exclusive (Weber, 1990) and as homogeneous as possible (Lincoln & Guba, 1985). The list of categories were then grouped under headings in order to reduce the categories if they were similar and refine them if they were vague (McCain, 1988). In this way, it was possible to build a coding frame (Schreier, 2014).

A preliminary model on which to base the inquiry was created through these frames. The initial model was modified within the course of the analysis as new categories emerged and then refined again (Miles & Huberman, 2002). Coding frames consisted of four categories and one or two subcategories which were set in the RQDA in the form of word or short phrases (see Table 6). While re-reading, the statements in the transcripts were color-coded in the RQDA program and these codes were used to “categorize similar data chunks” (Miles, Huberman, & Saldana, 2013, p. 79).

The transcripts were then shared with two other independent coders. Initially, the researchers were asked to code one interview set using RQDA. Once they finalized the initial coding, the coders came together to check coding of the sample text, its consistency and revise code rules. Having achieved sufficient coding consistency, the coders proceeded with coding of the rest of the interviews.

From these codes, similarities were grouped together and emerging categories were identified, with the aim of developing a model from the data (Thomas, 2003). With knowledge of possible categories from the coding process, the categories were refined with reference to those in the literature. Table 6 represents the codes and categories that guided the analysis.

Table 6  
Categories and codes

| Categories              | Codes                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------|
| Reasons for Learning    | Utility value attached to learning English<br>Intrinsic reasons for learning English                           |
| Efficacy Beliefs        | Self-efficacy beliefs<br>Self-worth concerns                                                                   |
| Regulation of Learning  | Regulation of effort<br>Surface-level strategy use<br>Deep-Level strategy use<br>Metacognitive self-regulation |
| Anxiety due to concerns | Test anxiety<br>Psychological pressure to succeed                                                              |

### Quantitative data analysis

In this study, the integration of the qualitative and quantitative happened at the design level with sequential design (Creswell & Plano Clark, 2011). The exploratory sequential case study applied in this study allowed for “the preliminary [collection] of data for eventual generalization ... to develop successive causal studies” (Mills,

Durepos, & Wiebe, 2009). Such a design allowed for the results of the qualitative phase to build the second phase (i.e. quantitative phase) of the research design. Based on the qualitative data analysis, data were collected from the scales of MSLQ by Pintrich and De Groot (1990) through questions representative of the categories (reasons for learning, efficacy beliefs, regulation of learning and anxiety due to concerns) and related codes. Thus, the independent variables were utility value, self-efficacy beliefs, intrinsic reasons, self-worth concerns and the dependent variables were effort regulation, rehearsal, critical thinking, metacognitive regulation and test anxiety. The items were presented on a seven-point Likert type format (1= *Not at all true of me*; 7= *Totally true of me*)

In this study, the statistical analysis was conducted through Statistical Package for the Social Sciences program (SPSS 18.0) and R 3.5.0 package. Once data was gathered through the MSLQ questionnaire, it was put in SPSS. Student responses were coded as 1,2,3,4,5,6 and 7. The negatively worded items (i.e., 33, 37, 57 and 60) were reversed and data was screened for missing values, outliers and normality distributions according to the guidelines provided by Tabachnick and Fidell (2007) for the subsequent data analysis.

The initial sample included 1,009 participants and in the analyses there were only few missing values. However due to missing data, the number of participants that were included in the model are as follows for each outcome: effort ( $N = 986$ ); rehearsal ( $N = 985$ ), critical thinking ( $N = 986$ ), metacognitive self-regulation ( $N = 988$ ) and test anxiety ( $N = 992$ ). The number of participants that were included in the model that concerned the outcome of effort was  $N = 986$ ; this means that there was

only 2.28% of missing data. Similar percentages apply to the outcome of the other four models: rehearsal ( $N = 985$ ; 2.38% of missing data), critical thinking ( $N = 986$ ; 2.28% of missing data), metacognitive self-regulation ( $N = 988$  ; 2.08% of missing data) and test anxiety ( $N = 992$ ; 1.68% of missing data). This is a low percentage of missing value. The number of cases with missing data is less than 5%, cases can be ignored. (Tabachnick and Fidell, 2007). Missing value analysis was done to detect whether it was completely at random (Hair et al., 1998) through Roderick Little's Missing Completely at Random (MCAR). The MCAR test with EM algorithm (Enders, 2001) for the whole set of the studied variables was statistically significant ( $\chi^2 [53] = 100.62, p < .001$ ). Although listwise deletion of cases in SPSS was used in the current study (Kline, 2005), the analyses were revisited through imputation method (with EM algorithm) to address the issue of missing data. The imputation method was conducted for each dependent variable where the original solution (i.e., listwise deletion) is compared to four different, randomly chosen versions of imputed data through EM algorithm with the aid of SPSS. The five tables (Table 7a, 7b, 7c, 7d, 7e) are provided in the appendices respectively, for effort regulation (see Appendix J), rehearsal (see Appendix K), critical thinking (see Appendix L), metacognitive regulation (see Appendix M) and test anxiety (see Appendix N). As can be seen the models remained virtually unchanged, whether it is through listwise deletion or imputed variables. In sum, there is no reason to impute any data for the missing cases.

Initially, reliability analyses were conducted for each latent variable in order to obtain Cronbach alpha reliability coefficients. Confirmatory Factor Analyses were performed in R 3.5.0 package to analyze the construct validity of the scales and make

sure that the observed variables account for latent variables within the context of this research. The descriptive and correlational statistical analysis were conducted.

#### *Data preparation and data screening*

The questionnaire was administered at the end of the second semester of 2015-2016 academic year. 1009 (476 female and 533 male) students, studying at different levels in the preparatory program participated in this study. The scales included a mixture of positively and negatively worded items. Data was screened. Initially, the negatively worded items in the data were reversed before the students' scores were computed. If a student circled a 1 on the negatively worded question, this item was reverse scored on SPSS and became 7. Similarly, for reversed items 2 became 6, 3 became 5, 4 stayed as 4. In this way, the data was made ready for the subsequent analyses. Secondly, data was examined for assumptions of outliers, normality, homoscedasticity and multicollinearity (Kline, 2005; Tabachnick & Fidell, 2007; Pallant, 2007) before the hierarchical regression analysis using SPSS Version 18. Following on from the assumptions check, the research hypotheses were tested using hierarchical regression in which effort regulation, rehearsal, critical thinking, metacognitive self-regulation and test anxiety were the dependent variables and utility value, self-efficacy, intrinsic reasons and self-worth concerns were the predictors.

#### *Assumption check for hierarchical regression analysis*

Before running the analysis, the necessary assumptions of regression analysis, i.e normality, multicollinearity, homoscedasticity, independence of residuals and outliers (Tabachnick & Fidell, 2007) were checked. The assumption of linearity for

each of the independent variables (utility value, self-efficacy, intrinsic reasons, self-worth concerns) (Appendix O) and the dependent variables (effort regulation, rehearsal and critical thinking, metacognitive self-regulation and test anxiety) (Appendix P) was tested through normal quantile-quantile plots (q-q plots). The plots do not provide evidence of non-linearity and thus the assumption of linearity is satisfied. The scatterplots also revealed that all the residuals have the same variance at each level of the predictor variable (Field, 2010). Thus, there was no violation of the homoscedasticity assumption.

The independent observation assumption was achieved through random selection of the participants. There was no relationship between the observations in the group or between the groups as the participants responded to the questions independently of one another. The Durbin-Watson coefficients were examined to test the independence of errors assumption. According to Field (2010), the Durbin-Watson value cannot be less than 1 and greater than 3 for uncorrelatedness of the residuals. The Durbin-Watson test values were computed as 2.06, 1.83, 1.88, 1.96 and 1.84 respectively for effort regulation, rehearsal, critical thinking, metacognitive self-regulation and test-anxiety. This assumption was satisfied.

In order to test the univariate outliers, that is, cases with extreme value on one variable, the values of each variable were converted to standard scores (i.e. Z scores) (Tabachnick & Fidell, 2007). Z scores are standardized scores with a mean of 0 and a standard deviation of 1. Hair, Anderson, Tatham and Black (1998) recommend considering cases with Z scores ranging from 3 to 4 to be outliers for a large data set with more than 80 cases. Tabachnick and Fidell (2007) suggest that cases with Z

scores higher than 3.29 ( $p < .001$ , two-tailed test) to be outliers. Only a small number of univariate outliers were identified and the Z scores of these outliers were not so extreme. The decision was made not to delete these outliers. Cohen (1983) state that ‘if outliers are few and not very extreme, they are probably best left alone’ (p.128).

To check for multivariate normality, Mahalanobis distances were calculated.

Multivariate outliers are cases of an unusual combination of scores on the dependent variables. Mahalanobis distance is the distance of a case from the point created by the means of all variables (Tabachnick & Fidell, 2007). The maximum value was found to be 24,602. This value is larger than the critical value of 22.458 with df of 6. Thus, at least one of the cases exceeds the critical value of 22.458. This suggested the presence of multivariate outliers. Once outlying observations were identified, Cook’s Distance, D, (Cook, 1977) was used to establish if these outliers were influential or not. It is suggested that the cases be excluded from the study if their exclusion is found to have a significant impact on the fitted regression function.

According to Tabachnick and Fidell (2007, p.75) cases which are larger than 1 may serve as a potential problem. In this study, the Maximum value for Cook’s Distance is .0111. It was found that a value of .0111 does not exert an undo amount of influence on the regression line. Since the Cook’s Distance is  $< 1$ , the influence is not considered to be large (Stevens, 2002). Thus, the cases were kept in the study.

A series of Pearson correlations were performed between all variables and for the non-repeat, past-repeat and current-repeat groups to test the assumption that there would be a moderate range of correlations between variables (Meyers, Gampst, &



Guarino, 2006). The correlations table (Table 8) was examined to check whether the bivariate correlations had .80 or above correlations. The correlations matrix showed that all correlations were below .80 as suggested by Stevens (2002). Additionally, variation inflation factor (vif) and tolerance statistics were calculated in SPSS for independent variables in order to find out if the vif values were less than 10 and the tolerance values were above 0.1 (Myers, 1990). The examination of the values showed that the multicollinearity assumption was met as vif was less than 10 and tolerance values were above 0.1.

The descriptive statistics and the bivariate correlations are given in Table 8. The descriptive statistics and the bivariate correlations for non-repeaters (see Appendix Q), past-repeaters (see Appendix R) and current repeaters (see Appendix S) are provided in the respective appendices.

Table 8  
Means, standard deviations and bivariate correlations

| Variables                   | <i>M</i> | <i>SD</i> | 1    | 2     | 3      | 4      | 5     | 6     | 7     | 8     | 9     | 10 |
|-----------------------------|----------|-----------|------|-------|--------|--------|-------|-------|-------|-------|-------|----|
| 1. Gender                   | 0.47     | 0.50      | -    |       |        |        |       |       |       |       |       |    |
| Motivational predictors     |          |           |      |       |        |        |       |       |       |       |       |    |
| 2. Utility value            | 4.56     | 1.22      | -.03 | -     |        |        |       |       |       |       |       |    |
| 3. Self-efficacy            | 4.80     | 1.07      | .02  | .37** | -      |        |       |       |       |       |       |    |
| 4. Intrinsic reasons        | 5.08     | 1.27      | .01  | .36** | .39**  | -      |       |       |       |       |       |    |
| 5. Self-worth concerns      | 4.61     | 1.98      | .03  | .17** | .11**  | .03    | -     |       |       |       |       |    |
| Motivational correlates     |          |           |      |       |        |        |       |       |       |       |       |    |
| 6. Effort regulation        | 3.88     | 1.32      | .03  | .28** | .31**  | .24**  | .14** | -     |       |       |       |    |
| 7. Rehearsal                | 4.16     | 1.39      | -.03 | .33** | .31**  | .23**  | .33** | .49** | -     |       |       |    |
| 8. Critical Thinking        | 4.39     | 1.30      | -.01 | .30** | .32**  | .43**  | .04   | .25** | .35** | -     |       |    |
| 9. Metacognitive regulation | 4.46     | 0.96      | -.01 | .41** | .39**  | .40**  | .22** | .56** | .70** | .54** |       |    |
| 10. Test anxiety            | 4.18     | 1.38      | -.02 | .08** | -.23** | -.08** | .36** | -.02  | .22** | -.01  | .12** | -  |

Note. \*  $p < .05$ , \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

### *Three stage analyses of quantitative data*

As an initial preliminary quantitative analysis an inspection of the descriptive statistic followed by inspection of the bivariate correlations ( $N = 1,009$ ) was done. The second stage included confirmatory factor analysis to test the fit of the data to the latent variables used in this study from MSLQ (Pintrich & De Groot, 1990). The third stage included hierarchical regression procedure, a method in multiple regression. Multiple regression analysis allows for the analysis of correlation between a criterion variable and the best combination predictor variables (Frankel & Wallen, 2006). In the third stage, five hierarchical regression analysis were conducted. The regression analysis was done for effort regulation, learning strategies of rehearsal, critical thinking and metacognitive self-regulation, and test anxiety. In this study, students' gender was used as a control variable and was included in Step 1 of the hierarchical regression analysis. In this way, it was possible to control for the gender variable and see the real effects of utility value, self-efficacy beliefs, intrinsic reasons and self-worth concerns on effort regulation, learning strategies and test anxiety.

### *Confirmatory factor analysis as measurement model*

Confirmatory Factor Analysis (CFA) was conducted in R and lavaan software package (Rosseel, 2012). CFA is a multivariate regression model which describes the relationship between a set of indicator variables and latent variables. CFA model represents "measurement model" (Kelloway, 1998). The aim of the CFA was to find out the extent to which the indicator variables measure the latent variables and find

out whether the indicators loaded on their respective latent variables (Schumacker & Lomax, 2010). The results of the CFA are provided for each of the latent variables below.

Absolute fit indices are used to determine and show how the proposed model fits the sample data (McDonald & Ho, 2002). These indices include Chi-Squared test, RMSEA, GFI, AGFI, the RMR and the SRMR. Since there is a disparity in agreement as to which indices to report and their cut-off scores as stated by (Hooper, Coughlan and Mullen, 2008), the indices of Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Standardized Root Mean Square Residual (S-RMR) and Confidence Intervals (CI) will be used as a measurement of confirmatory factor analysis (Jöreskog & Sörbom, 1993). The specific items under each subscale used in this study can be seen in Appendix D. A Confirmatory Factor Analysis (CFA) for a four-factor model (i.e. utility value, self-efficacy, autonomous - intrinsic reasons and the self-worth concerns), yielded acceptable fit:  $S-B\chi^2 (40, N = 948) = 133.50, p < .001, CFI = .949, SRMR = .043, RMSEA = .050$  (90% - CI: .042 - .058). A CFA for a five-factor model that included the five outcomes of effort regulation, rehearsal, critical thinking, test anxiety and metacognitive self-regulation showed the following fit:  $S-B\chi^2 (285, N = 858) = 865.55, p < .001, CFI = .908, SRMR = .061, RMSEA = .049$  (90% - CI: .045- .052).. The errors of pairs from critical thinking, effort regulation, metacognitive self-regulation and test anxiety were allowed to covary in the five-factor model. In light of these findings, an average of items was taken for each subscale were taken to create a composite score.

### *Hierarchical regression analysis*

Hierarchical regression procedure allows the entrance of predictor variables into the model in a way in which the researcher chooses. For the current study, the predictor variables were chosen based on a review of the literature. Thus, in conducting the five hierarchical regression analyses, in the first step (Step 1 hereafter) utility value, and self-efficacy were included. Additionally, the interaction between utility value and self-efficacy, as well as all the likely interactions between either utility value or self-efficacy was tested. In the second step (Step 2 hereafter), intrinsic reasons and self-worth concerns were included. Then, the interaction between intrinsic reasons and self-worth concerns was tested. The analyses were conducted first for the full sample, and then for each of the three subgroups of students. That is, the analyses were conducted for those who had not failed before (non-repeaters), those who failed in the past and had to repeat a course level again (past-repeaters), and those who were repeating the same course again (current-repeaters).

### **Summary**

The current study employed an exploratory sequential mixed methods case study research design. The study was conducted in the preparatory program. The first phase of the study was the qualitative phase. In this phase, semi-structured interviews were conducted with 15 students, five students from each category (i.e., non-repeating, past-repeating and current-repeating groups) to gain an in-depth understanding of the students' perceptions of their success and failure in the preparatory program. The qualitative phase guided the quantitative phase of the study. That is, thematic coding of the qualitative data helped to refine the research question and identify the scales to be used in the quantitative data collection. In the

quantitative phase, certain subscales and related items from the MSLQ (Pintrich & De Groot, 1990) was used to collect data from 1,009 students. The relationship between independent variables and the dependent variables were analyzed through five hierarchical regression analyses in two steps. The analyses were conducted for the full sample, non-repeating, past-repeating and current-repeating students. The next chapter presents the results from the two phases (i.e., qualitative and quantitative phases) of this study.



## **CHAPTER 4: RESULTS**

### **Introduction**

This exploratory case study investigated the English language learning motivation and strategies used by university level students at a preparatory program in Turkey. The study involved sequential mixed methods. Based on the results of the qualitative data analysis was conducted, the research questions were further revised. The exploration in the qualitative phase guided the quantitative phase and allowed to specify the quantitative phase questions.

In the quantitative phase, the study investigated “what” the relationships were among the identified motivational related constructs and learning strategies based on the results of qualitative data analysis and relevant literature review. This chapter presents the findings for the research questions:

### **Qualitative results**

#### **Students’ perceptions about the causes of success or failure in learning English**

This section provides the general perceptions of the students regarding their perceived their success and failure in learning English in the preparatory program with specific reference their motivation and use of learning strategies and answers the first research question and the related subquestions:

*Research question 1: The motivational components, reasons for learning and learning strategies as reported by those students, who succeed or fail a level in the program*

For the whole group, among the 6,639 words an average of 31.48% (SD=4.06) words were categorized under the following psychological process categories: affective processes, social processes cognitive processes, drives, time orientation and personal concerns. The 6,639 words were analyzed through the software. Additionally, the interview scripts for the non-repeating group (i.e., 2,087 words), past repeating group (i.e., 2,423 words) and currently repeating group (i.e., 2,129 words) were analyzed separately. These are reported as word counts and percentages for the non-repeating, past-repeating and current repeating students in Table 9. The results for each of the groups are also presented.

Table 9  
Word counts and percentages for each LIWC category results by group

| LIWC category        | Full sample |       | Non-repeaters |       | Past-repeaters |       | Current-repeaters |       |
|----------------------|-------------|-------|---------------|-------|----------------|-------|-------------------|-------|
|                      | n           | %     | n             | %     | n              | %     | n                 | %     |
| Affective processes  | 375         | 11.58 | 89            | 2.75  | 164            | 5.06  | 122               | 3.77  |
| Social processes     | 211         | 17.45 | 70            | 5.79  | 68             | 5.62  | 73                | 6.04  |
| Cognitive processes  | 559         | 35.43 | 193           | 12.23 | 197            | 12.48 | 169               | 10.71 |
| Perceptual processes | 127         | 16.22 | 34            | 4.34  | 52             | 6.64  | 41                | 5.24  |
| Drives               | 534         | 23.17 | 166           | 7.20  | 187            | 8.11  | 181               | 7.85  |
| Time orientation     | 284         | 32.95 | 86            | 9.98  | 96             | 11.14 | 102               | 11.83 |
| Personal concerns    | 258         | 30.71 | 92            | 10.95 | 83             | 9.88  | 83                | 9.88  |

*Non-repeating students.* Among the 2,087 words from the transcripts of the non-repeating students, 193 of them were found to refer to cognitive processes according to the LIWC dictionary approach. Some of the words used were as follows: “*motivate, motivation, motivational, question, concentrated, curious, recognize, relations, remember, think, thinking, understand, understanding, react,*



*use, specific, try, trying, desire, ideas.*” Social processes were also reflected on by the non-repeating students. Among the words used to refer to social processes were *“family, father, mother, parents, sister, girlfriend, blame, engaged, communicate, cultures, debate, discussions, meet, social, speaking, talking.”* Words referring to *“family”* also appeared under affiliations. The non-repeating students also reflected mostly on drives which is a dimension that captures affiliation, achievement, power reward and risk. Under this category, affiliations were made to family members, particularly, sister and parents. The power relations were highlighted through the use of words such as *“professor, student, students, teachers, teacher’s.”* Achievement in particular was denoted with the use of the following words: *“try, trying, motivate, motivation, motivational, fail, failed, failure, challenging, improve, success, successful, lazy, accomplish, achieve, achieved, ambitious, goal, goals, skills.”* The words *“success, successful, achieve, achieved, goal and goals”* were also categorized under reward. Affective processes were also referred to by non-repeating students. The positive emotions were reflected by the following words: *“benefit, brave, desire, engaged, enjoy, free, funny, good, happy, improve, interesting, love, perfect, relaxed, satisfy, success, successful, useful.”* Negative emotions as reflected by these students were: *“blame, blaming, boring, fail, failed, failure, impatient, lazy, poor, tension, worry.”* The non-repeating students’ reflection also implied a more focus on the present than the past and the future. These words included *“pass, start, wait, perfect, try, work, know, listen, speak, stay, feel, live, watch, need, want, depends, learn, mean, worry, keep, write.”* These students also made references to personal concerns such as work, home and money. The students’ made references to their majors and jobs. Words uttered included *“books, failure, ambitious, education, employee, law, professor, students, teachers, success, achieve, motivation, challenging, accomplish,*

*skills, business, companies, department, faculty, grade, hardwork, math, read, research, responsibility, scholarship, study, thesis, university, writing.*” The full list of the words included under each category for non-repeat group is presented in Appendix T.

*Past-repeating students.* The 2,423 words from the transcripts of the past-repeating students, like the non-repeating students, the students reflection focused on cognitive processes. Some of the words that were identified as reflective of cognitive processes were the same for non-repeating and past-repeating students. These were “*motivate, motivation, motivational, recognize, think, thinking, understand, understanding, curious, question, specific and try.*” There were, however, other words that the past-repeating students uttered which were reflective of cognitive processes. While the non-repeating students referred to the word “*remember,*” the past-repeating students uttered “*memorize.*” Additionally, while the former used the word “*react,*” the latter uttered “*realize.*” The past-repeating students used other words such as “*attention, conscious, distractions, problems, purpose.*”

Affective processes were also referred to by past-repeating students. While the total number of words was 89 for the non-repeating group, the past-repeating group used 164 words. Some of these words reflected positive emotions. These words were “*calm, easy, beneficial, encourage, excited, fun, good, great, happiness, happy, hopeful, hopes, importance, important, improve, laugh, opportunity, relax, relaxed, like, useful, well.*” There were also negative emotions as reflected by the utterances of the past-repeating students. Some of the words uttered by past-repeating students: “*aggressive, aggression, angry, anxious, bad, blame, blamed, bored, bother, cruel,*

*despair, difficult, difficulties, fail, failed, fear, ignore, lazy, pain, pressure, problem, sad, sorry, stress, stressed, struggle, upset, worry.*” Just like non-repeating students, past-repeating students referred to social processes. The students used the following same words. *“family, father, mother, parents, communicate, social, speaking.”*

Rather than *“blame”*, these students used the word *“encourage”* and *“suggestions.”*

The past-repeating students also reflected on *“drives”* and they used more words than the non-repeating students. As with non-repeating students, affiliations were made to family members and friends. This also appeared under social processes. The words *“encourage, encouraged, communicate”* were also representative of affiliations. The power relations were highlighted through the use of words such as *“leads, ambition, control, influence, struggle, struggler, strong, weakness.”* For achievement, past-repeating students used the words uttered by non-repeating students *“try, trying, motivate, motivation, fail, failed, challenging, improve, success, successful, lazy, accomplish, achieve, goals, skill.”* However, different from these, past-repeating students used the words *“efficient, effort, strategies.”* In addition to the words uttered by non-repeating students, (i.e. *success, successful, achieve, achieved, goal*), the past-repeating students used the word *“advance.”* The past-repeating students also used the words *“listen, speak and write.”* Additionally, they used words *“become, believe, realize, attend, continue”* in addition to *“need”* and *“want”* words which were uttered by non-repeating students.

These students also made references to personal concerns such as work, leisure, home and money. There were 83 words used to describe references to major and job (i.e. personal concerns). The past-repeating students made specific references to jobs *“lawyer, businessman”* and *“construction”* work. These students also used the crucial

word “*grade*” as was uttered by non-repeating students. There was also reference to “*department*” and “*effort*.” The full list of the words uttered by past-repeating students included under each category is presented in Appendix U.

*Current-repeating students.* The 2,129 words from the transcripts of the current-repeating students, unlike the past and non-repeating students, less number of words (i.e., 169 words) were found to refer to cognitive processes according to the LIWC dictionary approach. Some of the words that were identified as reflective of cognitive processes, were the same for all three groups. These were “*motivate, motivation, recognize, think, thinking, understand and question*.” The distinctive utterance made by the current repeating students were as follows: “*effective, effects, expected, forced, imagine*” and “*sure*.” An important word which only current repeaters used was “*infer*.” Like the past-repeating students, the current repeaters also used the word “*memorize*” and referred to memory. A related word which has a negative connotation, i.e. “*unaware*,” was also used by the current repeaters. The current-repeating students also made reference to social processes. All three groups made references to the words “*family, father, mother, parents, speaking*” and the current-repeating students also used the word “*boyfriend*.” Like non-repeating students, these students used the word “*blame*” and additionally, they used the word “*advice*” and “*informed*.”

Similar to cognitive processes, for the affective processes, the words current repeaters used were similar to both past-repeating and non-repeating student utterances. The words included derivatives of “*benefit, good, great, success*” and connotations of “*pleasure*” reflective of words such as “*joy, fun, happiness*” and

“*vital*” referring to “*useful*.” The negative emotions were also reflected on by the current repeating students. The utterances included the same words as past and non-repeating students: “*blame, boring, failed, failure*.” Distinctively, current repeaters used the following words: “*emotional, greedy, lose, lost, nervous*.” Two striking words that appeared under negative emotions were: “*unsuccessful*” and “*guilty*.”

Like the non-repeating and past-repeating students’ utterance, current-repeating students made reference to the “*drives*.” The current-repeating students also made affiliations to family members and friends. The power relations were highlighted with reference to words such as “*failed, ambitious, teacher, demanding, prestigious, allow*.” For achievement, current-repeating students used the words uttered by both past-repeating and non-repeating students. These words were: “*try, motivate, motivates, failed, challenges, achieve*.” The current repeaters also used the word “*able, proficiency and plan*.” While both the past and non-repeating students referred to “*skills*,” the past and current repeaters used the word “*strategies*.” Like the past and non-repeating students’ reflection, the current-repeating students’ reflected a focus on the present time. However, unlike other two groups, the current repeaters also focused on the past. The current-repeating revealed a focus on the present using the words such as “*lose, lack, forget, want, need, practice, know, understand*,” also making reference to the skills of listening, speaking and writing like the other two groups. Additionally, they made references to the past as reflected in the use of words such as “*lost, watched, needed, happened, became, studied, passed, decided, informed, bought, entered, started, gave, asked*.”

These students also made references to personal concerns such as work, leisure, home and money. The current-repeating students made specific utterances such as *“practice, management, manage, skills, law, department, hardworking, exam, lectures, studying, university, workshops, tests, lessons, responsible, graduate.”* These students used the word “job” explicitly. The full list of the words uttered by current-repeating students included under each category is presented in Appendix V.

### *Content analysis*

The analysis of the interviews conducted for the non-repeaters, past and current repeaters through the LIWC software revealed six categories. Both the analysis through LIWC and literature review on the role of motivation and learning strategies in language learning guided the content analysis.

The transcripts were re-read in order to further understand students’ perceptions and identify categories reflective of the literature review. The sentences in which these words appear were closely read in an attempt to create further categories. For instance, the sentences in which *“want, need, read, listen, speak”* occur were closely observed. Additionally, the words that reflect personal concerns were also closely read. The commonly used words under this category for all three groups were *“department, law, lawyer, hardwork, professor, teacher.”* Re-reading the transcripts, it was possible to see sentences with a combination of time orientation and personal concerns such as *“If I want to be a professor, I must learn English;”* *“I want to develop myself at [a] social and academic level.”* Based on the literature review conducted these words seemed reflective of the “utility value.” Particular attention

was given to the distinction between “utility value” and “intrinsic reasons for learning.” While the former refers to importance or value given to language learning, the latter includes a preference for tasks and materials that challenge and arouse curiosity. The words used by three groups of students reflective of their drive for achievement included “*challenge, challenging.*” Additionally, the word “curious” was categorized under cognitive processes. Thus, sentences such as “I like *Making Connections* book. They are scientific. They are challenging” was found to fall under “intrinsic reasons for learning.”

The recurring words under social processes (as well as personal concerns) revealed a focus on family and parents (specifically mother and father). The sentences were found to be reflective of self-worth concerns as in “There is a lot of family pressure;” Similar references to the parents revealed that these students may actually fear failure and thus have anxiety. Under affective concerns, words that appeared were: “*anxious, worry, despair, difficult, fear, pressure*” (past-repeating students), “*tension, worry*” (non-repeating students) and “*blame*” and “*fail*” (non-repeating and current-repeating students). A combination of reference to parents and failure was made reflective of test-anxiety. A sample student response includes: “I failed Intermediate three times. My parents ask “Why are you still here?”

Under drives for achievement, in addition to words such as “*try, accomplish, achieve, improve, goal, skill*” (non-repeating and past-repeating students) and “*efficient, effort, strategies, advance*” (pass repeating students) were used. Additionally, current-repeating students used “*able, proficiency, plan.*” Sentences reflective of these were coupled with positive emotions categorized under affective

processes such as “*benefit*” and “*improve*” from all groups): “I can choose hardworking- I will do my best. I know I will get a benefit.” These were reflective of “self-efficacy beliefs.” The words under drives for achievement also reflected “effort regulation.” Specific references to “*effort*” (past-repeating students), “*plan*” (current-repeating students) and “*engage*” (non-repeating students) were made. Words under this category revealed a pattern for “effort regulation.” Some of these words were “struggle” (past-repeating student), “*lazy*” (non-repeating and past-repeating students) and “*difficulty*” (current and past-repeating students): “Lazy... I choose easy way... I saw if I study hard... I will be successful.”

Under cognitive processes, the students used words such as “*recognize, remember*” (non-repeating students), “*memorize*” (past- and current-repeating students) and “*realize*” (past-repeating students). When the sentences where these words appear were closely observed, a reference to learning wordlists and collocations was observed: “... I will go home today and study collocations.” These words reflected a focus on “rehearsal.”

A concurrent vocabulary that appeared in all three groups was “*question, think, understand.*” When the sentences in which these words appear was re-read, it was possible to see the non-repeating students making references to deeper thinking. Additionally, there were references made to underlying grammatical structures in reading texts and trying to use them in writing by the past-repeating students. The current repeaters also made refernces to understanding what is read fully rather than memorizing. The words and related sentences reflected that students made statements reflective of “critical thinking.”



There were striking words uttered by students under personal concerns and these were related to leisure. These were “*books, videos*” (non-, past- and current-repeating students) and “*youtube*” (non- and current-repeating students). A close examination of these words within the sentences they appeared revealed that these words were used in relation to the word “*study*” and “*practice*.” The students actually revealed that they were watching youtube videos to revisit and understand what they had missed to understand when it was presented in class. One word that appeared under personal concerns was “*quizlet*” (non-repeating student). When the sentence in which this word appears was re-read, it was seen that this was a tool for the student to study vocabulary: “Quizlet is a good tool to learn words...” The comments to this end implied a focus on “metacognitive regulation” by the students.

Having identified the words through LIWC, reading the transcripts reitratively and referring to literature review, the following categories were identified in relation to MSLQ. The content analysis on the interviews was conducted based on these categories:

1. Utility value attached to learning English
2. Self-efficacy beliefs
3. Intrinsic reasons for learning English
4. Self-worth concerns
5. Regulation of effort
6. Surface-level strategy use
7. Deep-level strategy use
8. Test anxiety

Characteristic statements that illustrate students' perceptions regarding each of these categories are presented below, with numbers 1-5 representing non-repeaters; 6-10 representing past-repeaters and 11-15 representing current repeaters.

#### *Utility value attached to learning English*

The comments made by non-repeaters, past-repeaters and current repeaters revealed a strong emphasis on the importance attached to learning English particularly with regards to how they believe English will help them in their future studies. Statements made by students are given in Table 10.

**Table 10**  
**Statements made by students implying utility value**

| Student Status | Statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Non-repeaters  | <ol style="list-style-type: none"> <li>1. I want to continue my education in the USA. I want to learn another language. I want to learn Spanish. I think we should make connections with South America at a social and cultural level. I think this is important.</li> <li>2. I am not learning for COPE (the proficiency exam in the university where the research was carried out). I am learning for entire life. I will need this language- not only in my formal education also when I go abroad. Not for only for formal education but when we go abroad or meet with people from abroad, [English] will be very important</li> <li>3. World is big. I am studying at [this] university I may have to go abroad. I'll probably go. I will learn English. My department is [about computer and information tech]- I want to go to Silicon Valley. I want to recognize other cultures, customs and traditions. This is good to learn English.</li> <li>4. Why do I learn English is what I question? How to study English is not important. I prefer to ask myself why do I learn English?</li> <li>5. If I want to be a professor, [...] I must learn English.[The literature available] is in English. [...] Global language is English. You need to know English for business life.</li> </ol> |
| Past-repeaters | <ol style="list-style-type: none"> <li>6. I want to pass. I am excited about my department. This is a push factor for me.</li> <li>7. I feel OK when I think about my department or the Interior architecture clubs I can attend in the department.</li> <li>8. At high school, we did not have much English lessons and I wanted to learn. I watch series, the songs help me. I think it is so important. English is important. Wherever you go, people speak English. People will understand you better.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Table 10 (cont'd)

## Statements made by students implying utility value

| Student Status    | Statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Current-Repeaters | <p>9. English is the most popular language. I want to develop myself at a social and academic level.</p> <p>10. In my job [English] will help me.</p> <p>11. I want to study law in this school. I think learning English is important for this job. Since I was 5 years old, I wanted to be a lawyer. I didn't use to like English until my arrival here. Education is here.</p> <p>12. I want to go to Italy and use my English there. I will do my MA [there].</p> <p>13. English is a common language. In Law, English is needed. I want to work in an International Company. When I take a case, you want to consult foreign people.<br/>I am learning English for my future not for my department.<br/>I should understand what I read.<br/>I will need to read and understand. I will need to speak in the international arena.</p> <p>14. For my department, I do not want to graduate from any university. I must be different- I must graduate from good prestigious university. I must graduate to maintain my life standards. I must graduate and have a job for my kids. Here I read. English will allow me to see multicultural perspectives. I imagine things from my mind. to read and understand. I will need to speak in the international arena.</p> |

With reference to utility value, the comments made by the non-repeating students revealed that they are learning English because they believe it will be important for their education life and career. One student (#4) made a specific reference to how English will help him with more than just a proficiency exam. Other non-repeating students as well as the past-repeaters also stated that they attach value to English because it will help them cope with the demands of their studies. The current repeaters also made specific references to the usefulness of English in relation to their departmental studies and beyond. The students thus reflected that they will be able to use English not only in the preparatory program but also in other areas in their life. Their comments also revealed that they are very much interested in their studies and find it useful because they can see the benefit in the short and long term. In line with the literature, all these comments made by the students revealed that they find the learning English useful for future use and have high self-efficacy beliefs to

carry out the assigned tasks and regulate their efforts (Eccles et al., 1983; Eccles & Wigfield, 2002).

### *Self-efficacy beliefs as reflected by the students*

Irrespective of the students' existing status in the preparatory program, students reported that they believe in their capacity to successfully complete their studies in the program. Comments related to self-efficacy are given in Table 11.

Table 11  
Statements made by students implying self-efficacy beliefs

| Student Status   | Statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Non-repeaters    | 1. If I want something, I will do it. I wanted to be in the first 1000 and I did it. I wanted to learn English. My listening skills were poor. I said I will improve it. I never gave up. I studied very hard. Now my listening skill is perfect. [...] When I am relaxed and I know I can do it then I do it. [...] Before the exam, I said to myself I can do this. I know I can do this. I know I will pass this no matter what.                                                                                   |
| Past-repeaters   | 2. I can choose hardworking- I will do my best I know I will get a benefit.<br>5. If I were able to pass the previous course that means that I can pass this one.<br>6. Especially in the last ECA, I studied hard and I said to myself: "I can do this."<br>7. I am calm I say to myself continue to work and you will do good. [...] I always ensure myself that I studied enough and I try to calm down during the exam. [...] I study listening. I believe I am strong in reading, writing and grammar as I said. |
| Current-repeater | 10. I think I can go to another country and communicate with people there but I can't talk about academic topics.<br>14. I started PIN and now I am in UPPER- there has been a tremendous change in me.                                                                                                                                                                                                                                                                                                               |

One of the non-repeating students (#1) referred to the importance of believing in oneself, quality time spent studying rather than quantity and being responsible for own progress and learning. A past-repeater (#6) reflected that a belief in own capabilities: "I can do this." The current repeater verbalizes belief in self with regards to progress. In line with Pintrich and Zusho's (2002) reflection, the students in all groups evaluate and judge their own competence revealing the use of self-regulatory processes.

### *Intrinsic reasons for learning and self-worth concerns*

The students' comments reflected that in addition to evaluating the tasks with respect to its importance and usefulness, they ascribe value to learning English which is intrinsic and thus find learning English interesting and challenging. The statements made by students, reflecting intrinsic reasons, are given in Table 12.

Table 12  
Statements made by students implying intrinsic reasons

| Student Status    | Statements                                                                                                                                                                                        |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Non-repeaters     | 1. We are learning a new language. We are trying to understand how other people think. Learning English is learning about other cultures. I love learning about other perspectives.               |
|                   | 2. While studying, I am trying to enjoy [I am doing]. [...]The sources are interesting- to reach the sources in English I will need English... I want to reach knowledge- all sorts of knowledge. |
|                   | 3. [I am] curious- I want to learn a lot of words...I am not a PFC student or Upper, but I want to learn these words by studying them.                                                            |
| Past-repeaters    | 5. I like Making Connections book- They are scientific they are challenging.                                                                                                                      |
|                   | 6. I pay attention to learning English and I want to learn English.                                                                                                                               |
|                   | 7. While I'm studying I'm so excited I want to learn new things. [...] I try to ignore the door bell and other bell and other distractions. I study to learn something new.                       |
| Current-repeaters | 11. I love English and I want to learn English.                                                                                                                                                   |
|                   | 13. I am studying 3 hours in a day but I am studying with love.                                                                                                                                   |
|                   | 14. I should understand what I read...It is important to be able to understand what you read fully.                                                                                               |
|                   | 15. Here I read. English will allow me to see multicultural perspectives.                                                                                                                         |

To express their interest, the students referred to how much they enjoy learning English. The students also mentioned that they are curious (non-repeating student; #3), excited to learn new things (past-repeaters, #7) and study with love (current-repeaters; #13). While the students attached intrinsic value to learning English, they

also expressed they also bestow extrinsic reasons such that they want to prove their self-worth to significant others.

*Self-worth concerns due to psychological pressure to succeed*

One of the important findings of this study is that students admitted that they were under stress to complete their studies due to the pressure put on them by significant others. This was stated by students who were repeating a level currently and those who failed in the past. More remarkably, those who did not experience any failure in the preparatory program also expressed pressure. Among these students, there were those who considered themselves as guilty of their failure and those who were blaming the preparatory program context as being demanding. There were others who were criticizing their mothers and fathers. They stated that their parents could not understand the challenges they have had to confront in the process of learning English.

Some characteristic statements can be found in Table 13 and illustrate self-worth concerns due psychological pressure they felt was exerted on them to be successful.

Table 13  
Statements made students implying self-worth concerns

| Student Status | Statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Non-repeaters  | 4. ... My English teachers [said at high school] you will fail next exam.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                | 5. There is tension before the exam and after the exam. I do not like being around during the exam because people compare their answers. I do not like those sort of environments.                                                                                                                                                                                                                                                                                                                                                                                   |
| Past-repeaters | 6. I failed Intermediate three times and I said to myself "[...]you have to be patient". My parents ask "why are you still here?". They expect me to pass in one year. It is a tough for me to communicate it. In the last intermediate exams, I said to myself this is the last time you will be studying at Intermediate level. Nobody can pass in one year. First year they should spend time with friends but at the same time they study a bit. Second year, they have to work hard. But I don't know maybe I can't go to my department. This is my second year |

Table 13 (cont'd)

## Statements made students implying self-worth concerns

| Student Status    | Statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Past-repeaters    | <p>7. I failed Upper because it was my first year. [...] I also experienced a challenging family event</p> <p>8. I studied in summer school. I failed again UPPER again [...] Nobody can pass in one year. [...] But I don't know maybe I can't go to my department. This is my second year</p> <p>9. Don't blame teachers. Don't say I have family pressure. Just study. My life philosophy is no pain no gain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Current-repeaters | <p>10. The students in this class are so anxious about the exam. [...] I tell myself I should have worked harder [in INT] and not failed. I fear this level as well. I might fail now because I feel I did not keep it tight from the beginning. There is a lot of family pressure on me [...]. In this school, there is a lot of stress of exams</p> <p>11. Because I failed Intermediate level I feel bad about myself. [...] Things I experience in my private life and failing the course. I had a boyfriend I broke up and I became more stressed. My mom is upset about this.</p> <p>12. I am very stressed in the exam so I could not do the exam. Last year, I went to [another] University. One year is lost already</p> <p>13. On my part, I get very nervous on the exams. The system is very demanding. I did not know it was like this. I am really nervous even if I know something I may not be able to do it. [...]. There is a problem with my father. He does not know about the challenges here. My uncle tries to explain to him how it is difficult to pass. I study he sees it but he gets upset because I can't do it.</p> <p>14. [...]I know I should study to pass. [...] If I see my teacher 3-4 hours here [...] I am not successful.</p> |

In short, the content analysis revealed that students possess certain value beliefs as well self-efficacy beliefs. The qualitative findings revealed that the students referred not only to importance of learning (i.e., utility value) but also to their desire to learn due to interest, enjoyment and challenge. The results also revealed that students were under psychological pressure to be successful during their studies. Specifically, the students reported an intensified need to prove themselves.

The review of literature revealed that those students with high self-efficacy beliefs utilize better learning strategies (Wang & Lin, 2007) and that higher levels of task importance and utility increased effort and utilization of effective strategies (Elliot & Harackiewicz, 1996; Wigfield & Eccles, 2000; Pintrich, 2000). Thus, the students'

reflections in the semi-structured interviews were further analyzed in line with literature review to find out the strategies used by these students.

### *Learning strategies as reported by the students*

The comments made by the students implied that they gave importance to their studies and that they believed in their capacity to complete their studies within the program. For instance, non-repeating students reflected that learning English is important to be able to pursue education in another country and make connections with other countries at a social and cultural level. It was also evident in their answers that some may never give up until they improve their skills, work hard to get the best benefit out of the learning experience and pass the course. These students also mentioned that they are interested in learning a new language to be able to gain new perspectives. They stated that they find some scientific texts challenging, read these and enjoy the learning experience.

Some of these students also reflected on the pressure they have due to exams. The responses of the student indicated that despite such pressure to succeed in the preparatory program exams, students would still employ learning strategies. These students reflected on how they regulate their effort by adjusting their pace, keeping vocabulary journals and watching further videos. They reflected on their commitment to learning even in the face of challenges such as exams. Their reflections also included researching the topic, employing rehearsal strategies, and studying the vocabulary learnt in detail to fully comprehend it. The following table (Table 14) summarizes the learning strategy each student in the non-repeating group reflected on.



Table 14  
Learning strategy use as reflected by non-repeating group

|   | Specific learning strategies used by the students                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Category                                                                                     | Learning strategy scales from MSLQ                                          |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1 | Speed is important... We should not study at a stable pace. You should not wait and wait and then start studying. Instead you should adjust your speed.[...]We should divide the week up. I should study grammar one weekend. Even within that weekend, I will divide the topic up... Before the exam, I said to myself, I can do this. I know I will pass this no matter what.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Regulation of effort                                                                         | Effort regulation                                                           |
| 2 | I can choose hardworking- I will do my best I know I will get a benefit- probably this evening I will do what we did today. I tried to do this at INT and UPPER. I will go home today and study collocations. I can say funny, while studying I am trying to enjoy. I try to do jokes and enjoy. In class, I also try to do this.<br>Each course- I had one notebook- INT vocabulary notebook/ then I finished that I had UPP vocabulary notebook and then when I finished that I have a PFC vocabulary notebook- a brand new one- trying to write everything I heard. I am checking the dictionary and checking with my teacher.[...]My writing is not good. So I ask my teacher what I can do. I only study vocabulary and collocations. It helps me with language, reading, writing, I am trying to write.<br>I only repeat vocabulary and collocations. It helps me understand reading and writing parts. It helps with exam reading, writing and we have this word formation part. I memorize word forms. | Regulation of effort<br><br>Deep-level learning strategy use                                 | Effort regulation<br><br>Metacognitive self-regulation                      |
| 3 | Lazy sometimes- I always want to study but I don't sit to study. It has been very boring over the last 6 months. If a teacher is close to me, I ask her. If the teacher is not there I watch a video in the dormitory- a youtube video is useful. I listen to foreign teachers on youtube. I look at Turkish grammar books.<br>Before the ECA, I continue to study words., but in addition, I 'm studying some grammar- the ones which I do not know or remember- I study these. Quizlet is a good tool to learn words. Words are important for us.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Regulation of effort<br>Deep-level strategy use                                              | Effort regulation<br>Metacognitive self-regulation                          |
| 4 | I am not good at speaking, pronunciation, cultural information because I don't study very hard for English. I try to learn how to study English a lot. Why do I learn English is what I question. How to study English is not important. I prefer to ask myself why do I learn English?<br>At intermediate level I listened to the teacher tried to understand and then study but at this level there are many things I do not have time to observe.[...] I listen to the teacher and then there is no need to study more. But it depends I might choose to study.<br>The quality is what is important. Learn 5 words in a day and learn it fully. It takes 15 seconds to write the word and corresponding meaning but it would take an hour to understand the words fully.                                                                                                                                                                                                                                    | Deep-level learning strategy use<br><br>Regulation of effort                                 | Metacognitive self-regulation<br><br>Effort regulation                      |
| 5 | If I do not understand, I go home and watch a youtube video from the web to better understand it.<br><br>If I were able to pass the previous course, that means that I can pass this one. Maybe it will mean 10 more minutes for this course.<br>I don't like doing homework. I do it for the teacher. I also learn but I do it for the teacher.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Deep-level learning strategy use<br>Deep-level learning strategy use<br>Regulation of effort | Critical thinking<br><br>Metacognitive self-regulation<br>Effort regulation |

The statements made by the past repeating students also revealed that they were excited to move on with their studies in their departments. One student referred to this excitement as a “push factor.” The students also recognized that English will help them in their jobs and help them improve at a social and academic level. The students reflected on the importance of saying “I can do this” (# 1). They also reflected that they should stay calm and continue to work. These students also reflected that they love learning English and they are excited about learning new things. In terms of psychological pressure, like the non-repeating group, the past-repeating students made references to the role of the pressure created by the need to pass exams to be able to continue their studies in their respective departments. They also stated they will regulate their effort and be engaged in the tasks. One of these students explicitly stated that “if a person wants to achieve success, this person should struggle sufficiently and make an effort” (#4). Another student stated that in the face of difficulties, it is important to study: “You can have difficulties, yes, but you should study.” Among these students, while some reflected mostly on the use of rehearsal strategies with specific references to memorization of vocabulary, others reflected that they would underline the grammatical structure in the reading and try to play with the structure in their writing and show it to the teacher for feedback. These students were well aware that one or two days before the exam is not enough to pass the exams and that they would further work at home by watching videos on areas they do not understand in class. The following table (Table 15) summarizes the learning strategy each student in the past-repeating group reflected on.

Table 15  
Learning strategy use as reflected by past-repeating group

|    | Specific learning strategies used by the students                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Category                                                                                         | Learning Strategy Scales from MSLQ                                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 6  | Teachers are so important to pass a course because if they give you beneficial information, you want to go to the class. You can understand and you want to attempt to do the exercise...Lesson hours are too long; I always want to speak in the lesson. If nobody speaks I feel bored...I work harder than when I was high school. I pay attention to learning English and I want to learn English. I should not leave it to last day. Especially in the last ECA, I studied hard and I said to myself: I can do this. If I think this grammatical structure is good for me, I try to learn it.<br><br>Studying vocabulary is important for me. Everyday I try to do listening. I try to write three writings a week.<br><br>When I recognize [the grammar structure] in a reading I should underline it. I try to use it in my writing. I underline it in my writing so that I can get feedback from my teachers. | Regulation of effort<br><br>Deep-level learning strategy use<br>Deep-level learning strategy use | Effort regulation<br><br>Metacognitive self-regulation<br>Critical thinking |
| 7  | I always ensure myself that I study enough and I try to calm down during the exam.[...] I always listen to my teacher. I never sleep. Someone she tries to teach you something. I should listen to them.[...] Someone is trying to teach you something. Listen, revise don't worry just work- do revision regularly. They should find a way to study a way in which they will have fun.<br><br>I always keep my teacher's feedback in a folder. I look at my notes. I look at them and I say to myself, this is a new collocation. I should use this in my writing. This is better than the older.<br><br>I keep a notebook and I write important vocabulary here.                                                                                                                                                                                                                                                   | Regulation of effort<br><br>Deep-level learning strategy use<br>Surface-level strategy use       | Effort regulation<br><br>Critical thinking<br>Rehearsal                     |
| 8  | Last course my main teacher and I talked about my situation. He said something and he encouraged me for that thing. Then, I saw if I study hard then I will be successful. I saw this.[...]If I want to pass the ECA, I can't pass if I only study for 1 or 2 days before. I need to study way in advance. I saw that I can't pass if I study for 1 or 2 days. Vocabulary is a problem so I use quizzlet app. Every day I learn a lot of vocabulary. I do reading.                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Regulation of effort<br><br>Deep-level learning strategy use                                     | Effort regulation<br><br>Metacognitive self-regulation                      |
| 9  | I believe that if a person wants to achieve, this person should struggle sufficiently and make an effort. I like writing so I'm writing. My listening is bad sometimes. I study listening. I don't revise very much. I usually study listening because my reading and writing and grammar are better. I study vocabulary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Regulation of effort<br>Deep-level learning strategy use                                         | Effort regulation<br>Metacognitive self-regulation                          |
| 10 | I have friends who just passed the exam and are now in their department. I tell myself I should have worked harder in INT and not failed. I fear this level as well. I might fail now because I feel I did not keep it tight from the beginning. [...] This [getting feedback on the vocabulary use in writing] is actually what I started to do after I got a low grade from the CAT exam at intermediate level.<br><br>I am very curious. If I here something, I would dig into it more.<br><br>If I study at home and do not understand something. I watched videos. . I watched relative clause I learnt a lot.<br><br>In my writing, I used to memorize vocabulary and try to use it. Now, I write a sentence underline it and show it to my teacher and get feedback.                                                                                                                                          | Regulation of effort<br><br>Deep-level learning strategy use                                     | Effort regulation<br><br>Critical thinking                                  |

The current repeaters, like non-repeating and past-repeating students, also referred to the importance of English in their desire to pursue their education. One student reflected “In my department, I will need to read and understand.” Another reflected that “I want to go to Italy and use my English there. I will do my MA [there].” They also reflected that they want to graduate from this “prestigious university” in which they can learn and improve their English. One of these students also reflected on the “tremendous change” she has gone through. Similarly, one of these students reflected “I am studying three hours in a day, but I am studying with love.” Unlike non-repeating and past-repeating students, these students reflected that in addition to being stressed due to exams, they were anxious due to the pressure the family puts on them. In terms of effort regulation, there were students who stated that they have a potential to sleep and not talk to anyone if they feel they cannot achieve success.

There were also students who stated that they will “Ask teacher- It is so easy,” implying that they may not work further if they do not understand something. They reflected that they found it easier to ask the teacher than do research. There were others, who despite their failure, stated that they have a study routine and reflected that while “some people give up, but I don’t.” One of these students reflected that she will actually write down the wordlist into a notebook and memorize. However, these students, including the one who memorized vocabulary, reflected on the use of critical thinking strategies. The reflections included reading in detail and trying to understand, question what is being read and making links and associations, creating stories. Another student reflected: “To be able to learn.... and understand fully... We should not memorize. We should think about the issue not memorize.” These students also reflected that they break up the grammar points to be studied into days,

they are organized. One of these students reflected that she is aware of the times she should study but may not necessarily study and needs to organize her time well to study effectively. To conclude, the students reported the use effort regulation, metacognitive regulation, surface and deep- level strategies in learning English in the preparatory program. The following table (Table 16) summarizes the learning strategy each student in the current-repeating group reflected on.



Table 16  
Learning strategy use as reflected by current-repeating group

|    | Specific Learning Strategies used by the students                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Category                                                                                     | Learning Strategy Scales from MSLQ                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 11 | I look at the examples we did in class. I try to understand. My teacher puts some cloze test, reading and listening. I think I did only one of the reading and listening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Deep-level learning strategy use                                                             | Metacognitive self-regulation                                                       |
|    | I did word formation and looked at the vocabulary. I looked at the word list a lot I studied vocabulary especially word formation.[...] I study the words, I think it is effective but I see that it is not.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Surface-level learning strategy use                                                          | Rehearsal                                                                           |
| 12 | [Success in English class] depends on how many books and tv series you have watched. I am a visual learner and I like listening.<br>....I was writing the wordlist to my paper to memorize them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Deep-level learning strategy use<br>Surface-level learning strategy use                      | Metacognitive self-regulation<br>Rehearsal                                          |
|    | I read deeply...I have a tendency to go into details. Deeply- look at the questions and read deeply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Deep-level learning strategy use                                                             | Critical thinking                                                                   |
| 13 | I love studying I can study more no problem but exam stress affects me.<br>Between 7-10 p.m. I am writing, I do some reading. I try to listen. I bought a book for the exam. I do some of the exercises as if I am in the exam... I was so unaware. I would have like to learn about some strategies....I am breaking up the grammar points into days.<br>If I don't understand something I will read again. Then, I will ask my teacher                                                                                                                                                                                                                                             | Regulation of effort                                                                         | Effort regulation                                                                   |
| 14 | First of all, I am very planned. I make a plan in my head and I make sure I finish it before I sleep.<br><br>When I entered this university I was telling myself I am sure I can do it but there is a complicated system here.                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Deep-level learning strategy use<br>Deep-level learning strategy use<br>Regulation of effort | Metacognitive self-regulation<br>Metacognitive self-regulation<br>Effort regulation |
|    | I always ask my teacher if I do not understand one thing. I make sure that I ask if I do not understand. I ask during the break. If I can't remember something and I do not have someone to ask to I look it up on different websites. It seems like I understand but then I have difficulty. I get into stress. I am really said about this really. I have been studying since the course started. I study by writing I listen from the listening sites and I look up the words that I do not know.<br>To be able to learn what you want to learn in the most successful way. To be able to understand fully. We should not memorize. We should think about the issue not memorize. | Deep-level learning strategy use                                                             | Metacognitive self-regulation                                                       |
| 15 | I am aware of the times when I do not study, I go to the cinema. I know I will come back after 10:00 but that I will not work. I know that when I do not study I feel guilty but I do not give up what I plan to do.<br>Success means starting something and when you come to the end being able to say I am at a better point then I started.                                                                                                                                                                                                                                                                                                                                       | Regulation of effort                                                                         | Effort regulation                                                                   |
|    | I note things down. I have a ... systems. I create stories. In the past I used to create stories to remember things for the YGS exam- I will do this for English as well.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Deep-level learning strategy use                                                             | Critical thinking                                                                   |
|    | I need to write a lot. I did Open Forum, BBC learning English- there are stories there and I listen to them. I watch youtube videos I take notes of words. I need to write a lot of essays. I do some listenings from the websites.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Deep-level learning strategy use                                                             | Metacognitive self-regulation                                                       |

### **Revision to the quantitative research question based on the qualitative results**

Based on the analysis of the qualitative results, the quantitative phase of the research focused on specific aspects of motivational constructs and of learning strategies. The qualitative results yielded that the students, despite their varying status within the preparatory program, reflected that they view their studies as important for their departmental studies and in their careers after university education. The students also reported that they believe in their ability to succeed although they may experience failure at certain levels. The students also mentioned that they felt that they were under psychological pressure of passing the exams in order not to be dismissed from program. The students reflected that passing the exams was important as this would help them show their parents and others that they can achieve success. They also mentioned that they were intrinsically motivated to learn.

Students' reflections included utilization of several surface level, deep-level learning strategies and effort regulation. In line with these qualitative findings and literature review, this study specifically investigated the relationship of which utility value beliefs and self-efficacy beliefs to preparatory program students' reported learning strategy use of effort regulation, rehearsal, critical thinking and metacognitive regulation and to test anxiety. This investigation was done in the presence of intrinsic reasons and self-worth concerns. Such relations were investigated to examine the extent to which these relations differ among non-repeaters, past-repeaters, and current-repeaters.

## **Quantitative results**

As the study was based on the motivational components and on learning strategies, the descriptive analysis of the quantitative data collected through MSLQ questionnaire is provided, the details of which is shared below.

### **Descriptive statistics**

The target population in the present study is the students studying at the Preparatory Program in one of the private universities in Ankara, Turkey. The sample for this study was selected by convenience sampling method. Data was collected from (N = 1,009; 53% males) preparatory program students who successfully completed a level and who failed to do so either once or more once through the MSLQ questionnaire. Participants completed the demographic part of the questionnaire which elicited the number of times of repetition. The average age of participants was 19.04 years ( $SD = 1.08$ ). Respondents included non-repeating students ( $n = 328$ ), past-repeaters ( $n = 441$ ) and current-repeater ( $n = 215$ ).

The descriptive statistics for utility value, self-efficacy, intrinsic reasons, self-worth concerns, and effort regulation, rehearsal, critical thinking and metacognitive self-regulation and test anxiety revealed that mean score for each subscale ranged from 3.88 ( $SD = 1.32$ ) to 5.08 ( $SD = 1.27$ ). The highest mean scores are seen in the intrinsic motivation ( $M = 5.08$ ), self-efficacy ( $M = 4.80$ ) and self-worth concerns ( $M = 4.61$ ). The following guideline by Cohen (1988) was used to determine the strength of a relationship with the coefficient:  $r = .10$  to  $.29$  (small);  $r = .30$  to  $.49$  (medium);



$r = .50$  to  $1.00$  (large). Utility value as well as self-efficacy beliefs were related significantly and positively to all the other variables except for self-efficacy, which was negatively related to test anxiety.

Although there was a similar pattern for intrinsic reasons. It was unrelated to self-worth concerns. Effort regulation was found to positively relate to self-worth concerns. Additionally, the surface level strategy of rehearsal and the deep-level strategy of metacognitive regulation as well as test anxiety were found to positively and significantly relate to self-worth concerns. However, self-worth concerns were not related to critical thinking.

#### *Research questions 2 (a & b) and 3 (a & b)*

*2 (a & b) The relationship between task related beliefs (i.e. utility value), expectancy beliefs (i.e. self-efficacy) and learning strategy use (i.e. effort regulation, rehearsal, critical thinking and metacognitive regulation) and to affective factors (i.e. test anxiety). The likely interaction effects of utility value by self-efficacy beliefs for preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters).*

*3 (a & b) The relationship between intrinsic reasons and self-worth concerns and learning strategy use (i.e., effort regulation, rehearsal, critical thinking and metacognitive regulation) and to affective factors (i.e. test anxiety). The likely interaction effects of intrinsic reasons by self-worth concerns for preparatory program students with different achievement histories (i.e., non-repeaters, past-repeaters, and current-repeaters).*

Hierarchical multiple regression analyses were conducted for effort regulation, learning strategies of rehearsal, critical thinking and metacognitive self-regulation, and test anxiety. The interaction between utility value and self-efficacy as well as the interaction between intrinsic reasons and self-worth concerns was tested. The interaction terms are presented in the appendices for effort regulation (see Appendix W), rehearsal (see Appendix X), critical thinking (see Appendix Y), metacognitive self-regulation (see Appendix Z) and test anxiety (see Appendix AA).

### **The research questions and results**

The relations between the hierarchical regression variables and statistics were reported in tables (Table 17, 18, 19, 20 and 21) below for respective dependent variables separately. The analyses were conducted first for the full sample, and then for each of the three subgroups of students: non-repeaters, past-repeaters and current repeaters. Each table (Table 17, 18, 19, 20 and 21) presents the unstandardized regression coefficients (B) and standard error of b (SE of B), the standardized regression coefficients ( $\beta$ ), the squared semi-partial correlations ( $sr^2$ ), and adjusted explained variances ( $R^2$ ) values for the full group, non-repeaters, past-repeaters and current-repeaters, respectively. Gender had no relationship across groups Step 1.

#### *Findings of regression analysis for effort regulation*

The hierarchical multiple regression revealed (Table 17) that utility value and self-efficacy contributed significantly to the regression model for the whole group and accounted for 12.4 % of variance in effort regulation use for the full sample in the preparatory program in Step 1. With the inclusion of intrinsic reasons and self-worth concerns, an additional 4.8% of variation in effort regulation for the full sample

could be explained and this change in  $R^2$  was significant. Adding interaction terms by letting the model take into account effort regulation with respect to utility value and self-efficacy, revealed no interaction among these variables for the whole group,  $F(1, 985) = 1.667, p = .197$ . The same was true for intrinsic reasons and self-worth concerns for the whole group,  $F(1, 982) = 3.346, p = .068$ .

Utility value and self-efficacy made a statistically significant contribution to the prediction of effort regulation for the all three groups of students. With the inclusion of intrinsic reasons and self-worth concerns, an additional 6.3% of variation in effort regulation for the non-repeating group was explained. For all three groups, introducing the intrinsic reasons and self-worth concerns rendered utility value non-significant. For the non-repeaters, only three predictors (i.e., self-efficacy, intrinsic motivation and self-worth) were found to be significant predictors of effort regulation when the variance explained by all the other variables in the model is controlled for. For the past-repeaters, the variability was 4.9% and only intrinsic reasons was found to be a significant predictor of effort regulation. For the current repeaters, the variation was 3.7% and it was self-efficacy beliefs and intrinsic reasons which were found to be significant predictors of effort regulation for this group.

Adding interaction terms by letting the model take into account effort regulation with respect to utility value and self-efficacy (see Appendix W), revealed no interaction of utility value and self-efficacy for non-repeaters group  $F(1, 324) = 0.503, p = .479$ ;; past-repeaters  $F(1, 437) = 1.015, p = .314$ ; current repeaters group  $F(1, 211) = 0.297$ ,

$p = .586$ . The same was true for intrinsic reasons and self-worth concerns in that there was no interaction between intrinsic reasons and self-worth concerns for effort regulation for the whole group  $F(1, 982) = 3.346, p = .068$ ; non-repeaters  $F(1, 321) = 3.043, p = .082$ ; past repeaters  $F(1, 434) = 1.143, p = .286$ ; current repeaters  $F(1, 208) = 0.143, p = .706$

Overall, utility value and self-efficacy were significant and positive predictors of effort regulation across all groups in Step 1, though utility value made the lowest contribution to effort regulation in the current-repeaters group ( $\beta = .13, p < .05$ ). In Step 2, intrinsic reasons were found to be the single and consistent predictor of effort regulation across groups. On the other hand, self-worth concerns predicted effort regulation positively only the non-repeaters group, but not for the past-repeaters and current-repeaters groups; this suggests that self-worth concerns may mobilize a person to put more effort as long as no failure has been experienced.

Table 17

Hierarchical regression for variables predicting effort regulation for the full sample, and the three subgroups

| Predictors             | Effort Regulation         |          |         |                             |          |         |                              |          |         |                                 |          |         |
|------------------------|---------------------------|----------|---------|-----------------------------|----------|---------|------------------------------|----------|---------|---------------------------------|----------|---------|
|                        | Full sample ( $N = 989$ ) |          |         | Non-repeaters ( $n = 328$ ) |          |         | Past-repeaters ( $n = 441$ ) |          |         | Current-repeaters ( $n = 215$ ) |          |         |
|                        | $B$                       | ( $SE$ ) | $\beta$ | $B$                         | ( $SE$ ) | $\beta$ | $B$                          | ( $SE$ ) | $\beta$ | $B$                             | ( $SE$ ) | $\beta$ |
| <i>Step 1</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | 0.09                      | (0.08)   | .04     | 0.12                        | (0.15)   | .04     | 0.11                         | (0.12)   | .04     | 0.02                            | (0.16)   | .00     |
| 2. Utility value       | 0.21                      | (0.04)   | .20**   | 0.23                        | (0.06)   | .19**   | 0.24                         | (0.05)   | .23**   | 0.14                            | (0.07)   | .13**   |
| 3. Self-Efficacy       | 0.28                      | (0.04)   | .23**   | 0.31                        | (0.07)   | .24**   | 0.23                         | (0.06)   | .19**   | 0.38                            | (0.08)   | .32**   |
| $F$ change             | $F(3, 986) = 47.63^{**}$  |          |         | $F(3, 325) = 15.81^{**}$    |          |         | $F(3, 438) = 20.57^{**}$     |          |         | $F(3, 212) = 12.47^{**}$        |          |         |
| Adjusted $R^2$         | .12                       |          |         | .12                         |          |         | .12                          |          |         | .14                             |          |         |
| <i>Step 2</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | 0.08                      | (0.05)   | .03     | 0.08                        | (0.14)   | .03     | 0.12                         | (0.12)   | .04     | 0.01                            | (0.16)   | .00     |
| 2. Utility value       | 0.08                      | (0.08)   | .07*    | 0.08                        | (0.07)   | .07     | 0.10                         | (0.06)   | .10     | 0.03                            | (0.08)   | .02     |
| 3. Self-Efficacy       | 0.18                      | (0.04)   | .14**   | 0.22                        | (0.07)   | .17**   | 0.11                         | (0.06)   | .09     | 0.30                            | (0.09)   | .24**   |
| 4. Intrinsic reasons   | 0.30                      | (0.04)   | .26**   | 0.29                        | (0.07)   | .24**   | 0.31                         | (0.06)   | .28**   | 0.29                            | (0.09)   | .25**   |
| 5. Self-worth concerns | 0.05                      | (0.02)   | .08*    | 0.11                        | (0.04)   | .16**   | 0.03                         | (0.03)   | .05     | 0.00                            | (0.04)   | -.01    |
| $F$ change             | $F(2,984) = 28.35^{**}$   |          |         | $F(2, 323) = 12.62^{**}$    |          |         | $F(2, 436) = 12.87^{**}$     |          |         | $F(2, 210) = 4.83^{**}$         |          |         |
| Adjusted $R^2$         | .17                       |          |         | .18                         |          |         | .16                          |          |         | .17                             |          |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male, Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

### *Findings of regression analysis for rehearsal*

The hierarchical multiple regression revealed (Table 18) that utility value and self-efficacy contributed significantly to the regression model for the whole group and accounted for 14.8 % variance in rehearsal strategy use for the full group in the preparatory program. An additional 10.8 % of variation in rehearsal strategy use for the whole group was explained through the inclusion of intrinsic reasons and self-worth concerns and this change in  $R^2$  was significant. There was no interaction for the whole group with respect to utility value by self-efficacy,  $F(1,984)=0.221$ ,  $p=.639$  and later intrinsic reasons by self-worth concerns,  $F(1, 981) = 3.363$ ,  $p=.067$ .

Utility value and self-efficacy made a statistically significant contribution to the prediction of rehearsal for all three groups. Introducing the intrinsic reasons and self-worth concerns made a statistically significant contribution to the prediction of rehearsal strategy use for the three groups. While the intrinsic reasons predicted rehearsal strategy use marginally for the non-repeaters ( $\beta = .13$ ,  $p < .05$ ), it made strong contribution to rehearsal for current repeaters ( $\beta = .26$ ,  $p < .05$ ) and even stronger contribution for past repeaters ( $\beta = .32$ ,  $p < .01$ ). Compared to non-repeaters and past-repeaters, self-worth concerns made the least contribution to rehearsal strategy use in current repeaters ( $\beta = .18$ ,  $p < .05$ ). Self-worth concerns made a strong contribution to rehearsal for non-repeaters ( $\beta = .32$ ,  $p < .01$ ) and past-repeaters ( $\beta = .26$ ,  $p < .01$ ). Both value and self-efficacy beliefs became non-significant for the current-repeaters.

Adding interaction terms by letting the model take into account rehearsal with respect to utility value and self-efficacy (see Appendix X), there were no significant interaction between utility value and self-efficacy for non-repeaters group  $F(1, 323) = 1.025$ ,  $p = .312$ ; past-repeaters  $F(1, 437) = 0.069$ ,  $p = .793$ ; current repeaters group  $F(1, 211) = 0.607$ ,  $p = .437$ . The same was true for intrinsic reasons and self-worth concerns for non-repeaters,  $F(1, 320) = 1.307$ ,  $p = .254$  and current repeaters  $F(1, 208) = 0.165$ ,  $p = .685$ . The interaction of intrinsic reasons to self-worth concerns was found to be statistically significant for past-repeaters,  $F(1, 434) = 4.162$ ,  $p < .01$ .

Overall, utility value and self-efficacy were significant and positive predictors of rehearsal strategy use across all groups in Step 1. In step 2, both intrinsic reasons and self-worth concerns, emerged as the most consistent predictors of rehearsal.

Additionally, there was a statistically significant positive relationship between rehearsal and utility value and self-efficacy beliefs for the non-repeaters and past-repeaters group, but not for the current repeaters group. The findings suggest that those students who seek for challenges, yet have self-worth concerns such as proving their success to significant others, are more likely to report using rehearsal strategies, irrespective of their current status in the program.

Table 18

Hierarchical regression for variables predicting rehearsal for the full sample, and the three subgroups

| Predictors             | Rehearsal                 |          |       |                             |          |         |                              |          |         |                                 |          |         |
|------------------------|---------------------------|----------|-------|-----------------------------|----------|---------|------------------------------|----------|---------|---------------------------------|----------|---------|
|                        | Full sample ( $N = 989$ ) |          |       | Non-repeaters ( $n = 328$ ) |          |         | Past-repeaters ( $n = 441$ ) |          |         | Current-repeaters ( $n = 215$ ) |          |         |
|                        | $B$                       | ( $SE$ ) | $B$   | $B$                         | ( $SE$ ) | $\beta$ | $B$                          | ( $SE$ ) | $\beta$ | $B$                             | ( $SE$ ) | $\beta$ |
| <i>Step 1</i>          |                           |          |       |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.06                     | (0.08)   | -.02  | 0.03                        | (0.15)   | .01     | -0.29                        | (0.12)   | -.10*   | 0.04                            | (0.18)   | .01     |
| 2. Utility value       | 0.30                      | (0.04)   | .26** | 0.27                        | (0.06)   | .24**   | 0.32                         | (0.05)   | .28**   | 0.24                            | (0.08)   | .21**   |
| 3. Self-Efficacy       | 0.27                      | (0.04)   | .20** | 0.23                        | (0.07)   | .19**   | 0.29                         | (0.06)   | .22**   | 0.29                            | (0.09)   | .22**   |
| $F$ change             | $F(3, 985) = 58.01^{**}$  |          |       | $F(3, 324) = 14.34^{**}$    |          |         | $F(3, 438) = 35.39^{**}$     |          |         | $F(3, 212) = 10.36^{**}$        |          |         |
| Adjusted $R^2$         | .15                       |          |       | .11                         |          |         | .19                          |          |         | .12                             |          |         |
| <i>Step 2</i>          |                           |          |       |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.09                     | (0.08)   | -.03  | 0.01                        | (0.14)   | .00     | -0.30                        | (0.11)   | -.11**  | 0.03                            | (0.17)   | .01     |
| 2. Utility value       | 0.13                      | (0.04)   | .11** | 0.14                        | (0.07)   | .12*    | 0.12                         | (0.06)   | .10*    | 0.09                            | (0.09)   | .08     |
| 3. Self-Efficacy       | 0.14                      | (0.04)   | .11** | 0.18                        | (0.07)   | .15**   | 0.13                         | (0.06)   | .10*    | 0.14                            | (0.09)   | .11     |
| 4. Intrinsic reasons   | 0.30                      | (0.04)   | .25** | 0.16                        | (0.07)   | .13*    | 0.39                         | (0.06)   | .32**   | 0.33                            | (0.10)   | .26**   |
| 5. Self-worth concerns | 0.19                      | (0.02)   | .27** | 0.22                        | (0.03)   | .32**   | 0.19                         | (0.03)   | .26**   | 0.13                            | (0.05)   | .18**   |
| $F$ change             | $F(2, 983) = 71.71^{**}$  |          |       | $F(2, 322) = 23.77^{**}$    |          |         | $F(2, 436) = 40.42^{**}$     |          |         | $F(2, 210) = 10.07^{**}$        |          |         |
| Adjusted $R^2$         | .26                       |          |       | .22                         |          |         | .32                          |          |         | .19                             |          |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.



### *Findings of regression analysis for critical thinking*

The hierarchical multiple regression revealed (Table 19) that utility value and self-efficacy contributed significantly to the regression model for the whole group and accounted for 13.6 % of variance in critical thinking strategy use for the full sample in the preparatory program (Step 1). An additional 10.7% of variation in critical thinking strategy use for the full sample was explained in Strp 2 and this change in  $R^2$  was significant. Adding interaction terms by letting the model take into account critical thinking with respect to utility value and self-efficacy, revealed no interaction for the whole group  $F(1,985)=2.249$ ,  $p=.134$ . Inclusion of intrinsic reasons by self-worth concerns revealed an interaction for the whole group,  $F(1, 982) = 5.307$ ,  $p<.001$ .

Utility value and self-efficacy made a statistically significant contribution to the prediction of critical thinking strategy use for the all three groups. Both of these variables were significant and positive predictors of critical thinking across all groups in Step 1 with utility value marginally predicting critical thinking in the non-repeaters group ( $\beta=.14$ ,  $p<.05$ ).

An additional 10.4% of variation in critical thinking strategy use for the non-repeating group was explained through the addition of the intrinsic reasons and self-worth concerns to the model. For this group, only intrinsic reasons was found to be significant predictor of critical thinking. For the past-repeaters, the variability was 13.3% and for current repeaters, the variation was 6% and the changes in  $R^2$  were significant. For both of these groups, self-efficacy beliefs and intrinsic reasons were found to be significant predictors of critical thinking. Among the three groups,

intrinsic reasons emerged as a stronger predictor for the past-repeating group ( $\beta = .47$ ,  $p < .01$ ). With the inclusion of intrinsic reasons in Step 2, utility value became nonsignificant predictor of critical thinking across all groups. Self-efficacy beliefs marginally predicted critical thinking for the past-repeating group ( $\beta = .14$ ,  $p < .05$ ) and the current repeating group ( $\beta = .17$ ,  $p < .05$ )

Adding interaction terms by letting the model take into account critical thinking with respect to utility value and self-efficacy (see Appendix Y), revealed no interaction between for the non-repeaters group, current repeaters group and past repeaters group. There was also no significant interaction for the non-repeaters  $F(1, 321) = 2.781$ ,  $p = .096$ ; past repeaters  $F(1, 434) = 0.963$ ,  $p = .327$ ; current repeaters  $F(1, 208) = 2.294$ ,  $p = .131$  of intrinsic reasons by self-worth concerns. However, there was a significant interaction for the full sample  $F(1, 982) = 5.312$ ,  $p = .029$ .

Overall, as in effort regulation and rehearsal strategy use, controlling for utility value and self-efficacy, intrinsic reasons was found to be the only predictor of critical thinking across the three subgroups. This finding suggests that the more students were interested and engaged in the activities, the more critical thinking strategies they employed.

Table 19

Hierarchical regression for variables predicting critical thinking for the full sample, and the three subgroups

| Predictors             | Critical thinking         |          |         |                             |          |         |                              |          |         |                                 |          |         |
|------------------------|---------------------------|----------|---------|-----------------------------|----------|---------|------------------------------|----------|---------|---------------------------------|----------|---------|
|                        | Full sample ( $N = 989$ ) |          |         | Non-repeaters ( $n = 328$ ) |          |         | Past-repeaters ( $n = 441$ ) |          |         | Current-repeaters ( $n = 215$ ) |          |         |
|                        | $B$                       | ( $SE$ ) | $\beta$ | $B$                         | ( $SE$ ) | $\beta$ | $B$                          | ( $SE$ ) | $\beta$ | $B$                             | ( $SE$ ) | $\beta$ |
| <i>Step 1</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.02                     | (0.08)   | -.01    | 0.13                        | (0.14)   | .05     | -0.17                        | (0.12)   | -.06    | 0.19                            | (0.17)   | .07     |
| 2. Utility value       | 0.22                      | (0.04)   | .21**   | 0.15                        | (0.06)   | .14*    | 0.25                         | (0.05)   | .23**   | 0.27                            | (0.08)   | .24**   |
| 3. Self-Efficacy       | 0.29                      | (0.04)   | .24**   | 0.24                        | (0.07)   | .21**   | 0.31                         | (0.06)   | .25**   | 0.34                            | (0.09)   | .27**   |
| $F$ change             | $F(3, 986) = 52.73^{**}$  |          |         | $F(3, 325) = 9.67^{**}$     |          |         | $F(3, 438) = 29.51^{**}$     |          |         | $F(3, 212) = 15.98^{**}$        |          |         |
| Adjusted $R^2$         | .14                       |          |         | .07                         |          |         | .16                          |          |         | .17                             |          |         |
| <i>Step 2</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.03                     | (0.07)   | -.01    | 0.07                        | (0.13)   | .03     | -0.15                        | (0.11)   | -.06    | 0.17                            | (0.16)   | .06     |
| 2. Utility value       | 0.03                      | (0.04)   | .03     | -0.03                       | (0.06)   | -.03    | 0.04                         | (0.05)   | .04     | 0.12                            | (0.08)   | .11     |
| 3. Self-Efficacy       | 0.14                      | (0.04)   | .11**   | 0.10                        | (0.07)   | .08     | 0.13                         | (0.06)   | .11*    | 0.21                            | (0.09)   | .17*    |
| 4. Intrinsic reasons   | 0.47                      | (0.04)   | .42**   | 0.43                        | (0.07)   | .40**   | 0.52                         | (0.06)   | .47**   | 0.39                            | (0.09)   | .32**   |
| 5. Self-worth concerns | -0.02                     | (0.02)   | -.02    | -0.01                       | (0.03)   | -.01    | -0.02                        | (0.03)   | -.02    | -0.01                           | (0.04)   | -.01    |
| $F$ change             | $F(2,984) = 69.75^{**}$   |          |         | $F(2, 323) = 20.63^{**}$    |          |         | $F(2, 436) = 41.35^{**}$     |          |         | $F(2, 210) = 8.38^{**}$         |          |         |
| Adjusted $R^2$         | .24                       |          |         | .17                         |          |         | .29                          |          |         | .23                             |          |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

### *Finding of regression analysis for metacognitive self-regulation*

In Step 1 of the hierarchical multiple regression (Table 20), utility value and self-efficacy contributed significantly to the regression model for the whole group and accounted for 23.4 % of variance in metacognitive self-regulation use for the full sample in the preparatory program. An additional 12.9% of variation in metacognitive regulation for the full sample was explained through intrinsic reasons and self-worth concerns and this change in  $R^2$  was significant. Adding interaction terms by letting the model take into account metacognitive regulation with respect to utility value and self-efficacy, revealed no interaction for utility value by self-efficacy for the whole group  $F(1,987)=1.257$ . Interaction of intrinsic reasons by self-worth concerns emerged for the full sample  $F(1,984)=7.117$ ,  $p<.001$ .

Utility value and self-efficacy made a statistically significant contribution to the prediction of metacognitive regulation for all three groups. Utility value made the least contribution to metacognitive self-regulation in the non-repeaters group ( $\beta = .25$ ,  $p<.05$ ) and self-efficacy made the least contribution for the past-repeaters group ( $\beta = .25$ ,  $p<.05$ ). . An additional 11% of variation for the non-repeating group and 10.9% of variation for current repeating group could be explained in Step 2. For both of these groups, introducing the intrinsic reasons and self-worth concerns rendered utility value non-significant. For the past-repeaters, the variability was 15.8% and in addition all independent variables were found to be significant. However, both utility value ( $\beta = .11$ ,  $p<.05$ ) and self-efficacy beliefs ( $\beta = .09$ ,  $p<.05$ ) predicted metacognitive self-regulation marginally for this group. When the variance explained by all the other variables in the model is controlled for, the two predictors that were found to be significant, across three groups, were self-efficacy and intrinsic

motivation. The strongest predictor of metacognitive self-regulation for the non-repeating group ( $\beta = .46, p < .01$ ), followed by current-repeaters ( $\beta = .42, p < .01$ ) was found to be intrinsic reasons. Self-worth concerns predicted metacognitive self-regulation for both non-repeaters ( $\beta = .13, p < .01$ ) and past-repeaters ( $\beta = .18, p < .01$ ) but not for current-repeaters.

Adding interaction terms by letting the model take into account metacognitive regulation with respect to utility value and self-efficacy (see Appendix Z), revealed no interaction for non-repeaters group  $F(1, 325) = 0.011, p = .918$ ., past-repeaters  $F(1, 437) = 3.291, p = .070$  and current repeaters group  $F(1, 212) = 0.245, p = .621$ . There was, however, interaction of intrinsic reasons by self-worth concerns for metacognitive regulation for the full sample,  $F(1, 984) = 7.122, p < .01$ .

Overall, as in effort regulation, for metacognitive self-regulation, both utility value and self-efficacy beliefs were significant predictors, Self-worth concerns were found to be significant predictors of metacognitive regulation for the non-repeaters and past-repeaters. In Step 2, both self-efficacy and intrinsic reasons were found to be consistent predictors of metacognitive regulation among all groups.

Table 20

Hierarchical regression for variables predicting meta-cognitive self-regulation for the sample, and the three subgroups

| Predictors             | Meta-cognitive self-regulation |          |         |                             |          |         |                              |          |         |                                 |          |         |
|------------------------|--------------------------------|----------|---------|-----------------------------|----------|---------|------------------------------|----------|---------|---------------------------------|----------|---------|
|                        | Full sample ( $N = 989$ )      |          |         | Non-repeaters ( $n = 328$ ) |          |         | Past-repeaters ( $n = 441$ ) |          |         | Current-repeaters ( $n = 215$ ) |          |         |
|                        | $B$                            | ( $SE$ ) | $\beta$ | $B$                         | ( $SE$ ) | $\beta$ | $B$                          | ( $SE$ ) | $\beta$ | $B$                             | ( $SE$ ) | $\beta$ |
| <i>Step 1</i>          |                                |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.01                          | (0.05)   | -.00    | 0.08                        | (0.10)   | .04     | -0.08                        | (0.08)   | -.04    | 0.00                            | (0.11)   | .00     |
| 2. Utility value       | 0.24                           | (0.02)   | .30**   | 0.21                        | (0.04)   | .25**   | 0.26                         | (0.04)   | .34**   | 0.24                            | (0.05)   | .30**   |
| 3. Self-Efficacy       | 0.25                           | (0.03)   | .28**   | 0.26                        | (0.05)   | .30**   | 0.23                         | (0.04)   | .25**   | 0.28                            | (0.06)   | .32**   |
| $F$ change             | $F(3, 988) = 101.92^{**}$      |          |         | $F(3, 326) = 27.49^{**}$    |          |         | $F(3, 438) = 49.08^{**}$     |          |         | $F(3, 213) = 25.56^{**}$        |          |         |
| Adjusted $R^2$         | .23                            |          |         | .20                         |          |         | .25                          |          |         | .25                             |          |         |
| <i>Step 2</i>          |                                |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.03                          | (0.05)   | -.01    | 0.04                        | (0.09)   | .02     | -0.08                        | (0.07)   | -.04    | -0.02                           | (0.10)   | -.01    |
| 2. Utility value       | 0.08                           | (0.03)   | .10**   | 0.07                        | (0.05)   | .08     | 0.09                         | (0.04)   | .11*    | 0.09                            | (0.05)   | .12     |
| 3. Self-Efficacy       | 0.13                           | (0.03)   | .14**   | 0.16                        | (0.05)   | .18**   | 0.08                         | (0.04)   | .09*    | 0.16                            | (0.06)   | .18**   |
| 4. Intrinsic reasons   | 0.36                           | (0.03)   | .42**   | 0.32                        | (0.05)   | .38**   | 0.38                         | (0.04)   | .46**   | 0.36                            | (0.06)   | .42**   |
| 5. Self-worth concerns | 0.07                           | (0.01)   | .13**   | 0.06                        | (0.02)   | .13**   | 0.09                         | (0.02)   | .18**   | 0.02                            | (0.03)   | .04     |
| $F$ change             | $F(2, 986) = 100.51^{**}$      |          |         | $F(2, 324) = 25.82^{**}$    |          |         | $F(2, 436) = 58.41^{**}$     |          |         | $F(2, 211) = 18.39^{**}$        |          |         |
| Adjusted $R^2$         | .36                            |          |         | .30                         |          |         | .40                          |          |         | .37                             |          |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

### *Findings of regression analysis for test anxiety*

In Step 1, the hierarchical multiple regression (Table 21) revealed that, utility value and self-efficacy contributed significantly to the regression model for the whole group and accounted for 8.8 % of variance in test anxiety use for the full sample in the preparatory program. Addition of the intrinsic reasons and self-worth concerns to the model explained an additional variation of 13.5% in test anxiety for the full sample and this change in  $R^2$  was significant,  $F(2, 990) = 86.249$ ,  $p < .001$ . Adding interaction terms by letting the model take into account test anxiety with respect to utility value and self-efficacy, for the whole group, revealed no utility value by self-efficacy interaction  $F(1,991)=1.446$ ,  $p=.229$  and for intrinsic reasons by self-worth concerns  $F(1, 988)=0.080$ ,  $p=.778$ .

Utility value and self-efficacy made a statistically significant contribution to the prediction of test anxiety for the non-repeating group and past-repeaters group. For the current repeaters group, it was only self-efficacy beliefs that was found to be statistically significant. For all groups, self-efficacy negatively predicted test anxiety. Thus, as the self-efficacy beliefs increased anxiety levels decreased for all three groups. Especially, self-efficacy had the strongest contribution to test anxiety for the non-repeaters ( $\beta = -.40$ ,  $p < .01$ ) and made the least contribution to test anxiety for the current repeaters ( $\beta = -.17$ ,  $p < .01$ ).

An additional 14.5% of variation in test anxiety for the non-repeating group was explained through the introduction of intrinsic reasons and self-worth concerns. For the past-repeaters, the variability was 11.9% and for the current repeaters the variability was 12.5%, and this change in  $R^2$  was significant. For the non-repeaters and past repeaters, utility value and self-worth concerns were found to be significant and positive predictors of test anxiety. While utility value marginally predicted test anxiety ( $\beta = .13$ ,  $p < .01$ ) for past repeaters, the prediction was stronger ( $\beta = .17$ ,  $p < .05$ ) for the non-repeaters. Self-efficacy beliefs were found to significantly and negatively predict test anxiety across all three groups. For both non-repeating and past-repeating groups, self-efficacy beliefs strongly predicted test anxiety ( $\beta = -.37$ ,  $p < .05$ ) and for current repeaters, the prediction was significant but lower ( $\beta = -.27$ ,  $p < .05$ ).

Adding interaction terms (see Appendix AA), revealed no utility value by self-efficacy interaction for non-repeaters group  $F(1, 327) = 2.084$ ,  $p = .150$ .; past-repeaters  $F(1, 438) = 1.069$ ,  $p = .793$ ; current repeaters group  $F(1, 213) = 2.252$ ,  $p = .135$ . The same was true for intrinsic reasons by self-worth concerns for non-repeaters  $F(1, 324) = 1.158$ ,  $p = .283$ ; past repeaters  $F(1, 435) = 0.119$ ,  $p = .882$ ; current repeaters  $F(1, 210) = 0.810$ ,  $p = .180$ .

Overall, self-efficacy was found to be a significant and negative predictors of test anxiety across all groups in Step 1 and utility value was found to be a significant and positive predictor for non-repeaters and past-repeaters. Controlling for utility value and self-efficacy, in Step 2, it was only self-worth concerns which was found to be the positive and consistent predictor of test anxiety. There was a significant but negative



relationship between self-efficacy and test anxiety across three groups. Additionally, there was a significant and positive relationship between self-worth concerns and test anxiety across three groups. This finding suggests that irrespective of their past achievement histories, the more students were concerned about how others view them, the more anxiety they experienced. The findings also suggest that the more students believe in themselves, the less anxiety they experienced.



Table 21  
Hierarchical regression for variables predicting test anxiety for the sample, and the three subgroups

| Predictors             | Test anxiety              |          |         |                             |          |         |                              |          |         |                                 |          |         |
|------------------------|---------------------------|----------|---------|-----------------------------|----------|---------|------------------------------|----------|---------|---------------------------------|----------|---------|
|                        | Full sample ( $N = 989$ ) |          |         | Non-repeaters ( $n = 328$ ) |          |         | Past-repeaters ( $n = 441$ ) |          |         | Current-repeaters ( $n = 215$ ) |          |         |
|                        | $B$                       | ( $SE$ ) | $\beta$ | $B$                         | ( $SE$ ) | $\beta$ | $B$                          | ( $SE$ ) | $\beta$ | $B$                             | ( $SE$ ) | $\beta$ |
| <i>Step 1</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | 0.00                      | (0.08)   | .00     | 0.04                        | (0.15)   | .01     | -0.17                        | (0.13)   | -.06    | -0.09                           | (0.19)   | -.03    |
| 2. Utility value       | 0.23                      | (0.04)   | .20**   | 0.25                        | (0.06)   | .21**   | 0.25                         | (0.06)   | .23**   | 0.12                            | (0.08)   | .11     |
| 3. Self-Efficacy       | -0.40                     | (0.04)   | -.31**  | -0.50                       | (0.07)   | -.40**  | -0.40                        | (0.07)   | -.31**  | -0.23                           | (0.10)   | -.17*   |
| $F$ change             | $F(3, 992) = 33.02^{**}$  |          |         | $F(3, 328) = 19.27^{**}$    |          |         | $F(3, 436) = 15.40^{**}$     |          |         | $F(3, 214) = 2.21$              |          |         |
| Adjusted $R^2$         | .09                       |          |         | .14                         |          |         | .09                          |          |         | .02                             |          |         |
| <i>Step 2</i>          |                           |          |         |                             |          |         |                              |          |         |                                 |          |         |
| 1. Gender              | -0.04                     | (0.08)   | -.02    | 0.05                        | (0.13)   | .02     | -0.21                        | (0.12)   | -.08    | -0.07                           | (0.18)   | -.03    |
| 2. Utility value       | 0.15                      | (0.04)   | .13**   | 0.20                        | (0.07)   | .17**   | 0.14                         | (0.06)   | .13*    | 0.04                            | (0.09)   | .04     |
| 3. Self-Efficacy       | -0.45                     | (0.04)   | -.35**  | -0.47                       | (0.07)   | -.37**  | -0.47                        | (0.06)   | -.37**  | -0.35                           | (0.10)   | -.27**  |
| 4. Intrinsic reasons   | 0.06                      | (0.04)   | .05     | -0.07                       | (0.07)   | -.06    | 0.11                         | (0.06)   | .10     | 0.15                            | (0.10)   | .12     |
| 5. Self-worth concerns | 0.26                      | (0.02)   | .37**   | 0.26                        | (0.03)   | .38**   | 0.24                         | (0.03)   | .34**   | 0.25                            | (0.05)   | .34**   |
| $F$ change             | $F(2, 990) = 86.25^{**}$  |          |         | $F(2, 326) = 33.48^{**}$    |          |         | $F(2, 437) = 32.95^{**}$     |          |         | $F(2, 212) = 15.71^{**}$        |          |         |
| Adjusted $R^2$         | .22                       |          |         | .28                         |          |         | .21                          |          |         | .14                             |          |         |

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

## Summary

In this exploratory sequential mixed methods case study, the qualitative results guided the quantitative phase. The qualitative phase investigated, through semi-structured interviews, the English language learning motivation and strategies used by students studying at the preparatory program in one of the English-medium universities in Turkey. The analysis of the transcripts of the interviews through LIWC and re-reading the transcripts allowed for thematic coding of the qualitative data. The qualitative results yielded that the students, despite their varying status within the preparatory program, reflected that they view their studies as important for their departmental studies and their careers. The students also reflected that although they may experience failure at certain levels, they believe in their ability to succeed.

Given that the students have to complete their studies within at most two years, the students also reflected that they felt under psychological pressure of passing the exams as they fear being dismissed. Passing the exams and showing their parents that they can achieve success were also reflected as being important.

Despite their status, the students reflected that they were intrinsically motivated to learn. Student also reflected that they use learning strategies (either surface or deep-level) and regulate their effort. In short, the students reported that they possess value and efficacy beliefs. They also reported that they learn for intrinsic reasons, however, that they have self-worth concerns. Additionally, the students reported having test anxiety, yet regulating their efforts, making use of rehearsal as well as critical thinking and metacognitive regulation.

The quantitative phase of the study utilized hierarchical regression analysis to investigate the extent to which utility value beliefs and self-efficacy beliefs relate to their reported learning strategy use and to affective factors. This investigation was performed in the presence of reasons for learning and concerns related to self. These relations were investigated to examine the extent to which these relations differ across students from non-repeater, past-repeater, and current-repeater groups. In step 1, utility value and self efficacy beliefs were significant and positive predictors of all independent variables. It was intrinsic reasons which was found to be the consistent predictor of effort regulation, rehearsal, critical thinking and metacognitive regulation. Additionally, self-worth concerns were significant and positive predictors of test anxiety across all groups. There was a significant interaction of intrinsic reasons by self-worth concerns for critical thinking and metacognitive self-regulation for the full sample.

## **CHAPTER 5: DISCUSSION**

### **Introduction**

This study examined the relations among motivational constructs and learning strategies as reported by the students through exploratory sequential mixed methods case study research design. The purpose of this chapter is to discuss the results and relate them to prior research. Implications for further research and practice, along with reflections by the researcher are also presented in this chapter.

### **Overview of the study**

This study utilized an exploratory sequential mixed methods case study research design. The basic purpose for initial data analysis in this exploratory design was to explore motivational constructs and learning strategies used by the students as a phenomenon in depth (Morse & Niehaus, 2009). The phenomenon under investigation was the relationship of utility value, self-efficacy beliefs, intrinsic reasons, self-worth concerns and effort regulation, rehearsal, critical thinking, metacognitive self-regulation and test anxiety for students studying within the context of the preparatory program. For the purposes of this research, data was collected from students studying in the preparatory program of the university in which the research was carried. The quantitative phase included semi-structured interviews with students from three different groups. The focus of these interviews was how students perceive themselves as language learners and how they explain their

perceived success and failure in learning English. The qualitative results revealed that the students viewed learning experience in the preparatory program as important for their departmental studies and future lives. The students also reflected that they held self-efficacy beliefs, were intrinsically motivated to learn and had self-worth concerns. There was also reflection on the use of surface level, deep level strategies as well as effort regulation. These findings guided the quantitative data collection. Quantitative data was gathered from the scales of MSLQ based on the qualitative analysis. Accordingly, the quantitative data analysis included examination of the extent to which next to utility value and self-efficacy, intrinsic reasons and self-worth concerns would explain students' study effort, surface and deep level strategy use and test anxiety in a context where the pressure for success is high and where students had already experienced various degrees of difficulties and setbacks. Five separate hierarchical regression analyses were conducted to answer the quantitative research question.

### **Major findings**

Adopting an exploratory sequential mixed methods case study research, this study aimed to explore and understand the phenomenon qualitatively first and then through quantitative data collection. Accordingly, the findings from different data collection instruments are merged within the discussion section. The research findings, both qualitative and quantitative, are presented as they relate to the literature and practice. The results of the study are as follows:

1. When the association among utility value beliefs and self-efficacy beliefs, and effort regulation, rehearsal and critical thinking and metacognitive regulation learning strategies and test-anxiety were observed:
  - a. both utility value and self-efficacy beliefs served as significant and positive predictors of effort regulation, rehearsal, critical thinking and metacognitive self-regulation across all three groups;
  - b. there was a positive relationship between utility value and test anxiety for both non-repeating and past-repeating but not for current-repeating students;
  - c. there was a significant and negative relation between self-efficacy and test anxiety for students in all three groups.
2. With the inclusion of intrinsic reasons and self-worth concerns to the prediction of the studied outcomes:
  - a. intrinsic reasons were positive and strongest predictor of effort regulation, rehearsal, critical thinking and metacognitive strategies for the students in three groups;
  - b. there was a positive significant relationship between self-worth concerns and rehearsal and test anxiety across all three groups
  - c. self-worth concerns predicted effort regulation only for non-repeaters and metacognitive strategies for non-repeaters and past-repeaters;
  - d. self-worth concerns did not predict critical thinking for any of the three groups
  - e. self-efficacy beliefs remained significant and negative predictors of test anxiety across all three groups.

### **The four phases of self-regulatory process**

As discussed in the literature review, motivation is essential to be persistent in a task and for employment of various cognitive and metacognitive strategies (Pintrich & De Groot, 1990; Zusho, Pintrich & Coppola, 2003). Through the lens of self-regulatory learning theory, successful learners are viewed as proactive when they are responsible for their own learning. Such learners are seen to plan, set goals, regulate their efforts, control boredom and overcome test-anxiety (Schunk & Zimmerman, 2008). Thus, from a motivational point of view, self-regulated learners view themselves as autonomous and intrinsically motivated learners. More explicitly, one of the core components of self-regulated learning has been shown to be high academic self-efficacy (Schunk, 2005). Students who possessed high self-efficacy beliefs expend extra effort and perceive difficult tasks as challenges to be mastered, trying their best to perform successfully (Bandura, 1993; Schunk, 1995). They do so by autonomously employing learning strategies (Green & Oxford, 1995; O'Malley & Chamot, 1990). Drawing from SDT, often these self-efficacious students exhibit these behaviors because they enjoy learning; they are intrinsically motivated (Ryan & Deci, 2001). Literature reveals that students, who hold intrinsic reasons for learning are likely to have increased cognitive engagement, expend effort, persist on task despite challenges and make use of successful learning strategies (Elliot & Harackiewicz, 1996; Wigfield & Eccless, 2000; Wolters, 2004). The role of intrinsic value in the development of interest by definition refers to inherent desire to engage in tasks.

Referring again to SDT, it is possible that self-efficacious students may be more concerned about proving their self-worth to others; they extrinsic goal orientations



(Ryan & Deci, 2001). The current study sought to further explore the possibility of this reason for self-regulated learning. In particular, it is unclear how utility value may contribute to engagement in tasks or use of certain learning strategies. In fact, the relationship becomes more apparent if it is viewed from the point of researchers who view utility value as extrinsic in nature (Deci & Ryan, 1985).

It is this extrinsic nature of utility value that distinguishes it from intrinsic reasons for learning and was thus investigated for its relationship to test anxiety, learning strategies and effort regulation in this study. The findings as discussed below substantiate the important and consistent role of intrinsic reasons. In other words, intrinsic reasons play an important role in the utilization of rehearsal, critical thinking, metacognitive self-regulation and regulation of effort in the presence of self-worth concerns. Self-worth concerns also play an important role in test anxiety and the use of rehearsal strategies in the three groups.

### **Utility value and self-efficacy beliefs**

For the students in this study, the external pressure to learn English is strong; this pressure became even more apparent in the semi-structured interview responses. Indeed, English exams play a critical role as a gatekeeper at transitional stages of their education within the program. In the preparatory program, the end of course exam will decide whether the students will progress to the next level or repeat the same level. Those students who achieve 60% success can continue their studies in the next level. If a student fails to progress a level, this may not always be due to lack of knowledge but may be due to test-anxiety as suggested by the results of this study. One could argue that such test-focused orientation, especially for those student

who repeatedly failed an exam, may discourage students from ascribing utility to learning English and may result in students lacking confidence in their competence to learn the language and use a variety of strategies. Contrary to this assumption, the findings of this study present a picture on the positive relationship of utility value and self-efficacy beliefs to learning strategies, test anxiety and regulation of efforts, confirming earlier research (Durik, Vida, & Eccles, 2006; Eccles & Wigfield, 2002; Harackiewicz et al., 2002).

In the semi-structured interviews, the students from the three groups stressed that they value their studies and believe in their capability in learning and performing. The students reported that they attach high value to learning English. The reflections focused on English being a global language that will help them in their future jobs. Additionally, the students reflected on the importance of learning English to pursue their departmental studies. Although such references seem external factors, the reflections revealed that the students committed themselves to continued learning. This finding is in line with research which has shown that high value beliefs activate students' effort and consequently their task engagement through deep-level strategies (Greene & Miller, 1996; Pintrich & Garcia, 1991; Schiefele, 1991). The objectives laid out in the curriculum and the related tasks play a critical role in improving students' perceptions of utility value. It is, therefore, important to design activities that engage students in tasks that have meaning for their studies. It is important to discourage students from questioning the tasks and the value attached to them (Pintrich & De Groot, 1990) as this might lead to eventual giving up on the task.

A related finding of the study is that students who hold high self-efficacy beliefs report the use of both surface level strategy of rehearsal and deep level strategies of critical thinking and metacognitive regulation. Such association is in line with previous studies that found that a student with high sense of self-efficacy will put the necessary amount of effort into a task (Liem et al., 2008; Pajares, 1997; Pajares & Graham, 1999; Schunk, 2005). Other studies have also found that a student with high sense of self-efficacy will value the tasks and perform better than those with low sense of self-efficacy (Amil, 2000; Liem et al., 2008; Pajares & Graham, 1999; Pintrich & Schunk, 1996; Purzer, 2011; Zimmerman, Bandura & Martinez-Pons, 1992). Thus, students with high self-efficacy seem to be aware that they can learn the material if they study hard enough and in appropriate ways. Indeed, the more students perceive academic tasks to be useful for them in the future, the more effort they exert and the more learning strategies they may recruit (Miller & Brickman, 2004), either deep-level (such as critical thinking and metacognitive regulation) or surface-level (such as rehearsal). The consistency with the results of existing research is also evident in the findings of Eccles and Wigfield (2002). The researchers found that if students believe that they can achieve a task, they become more engaged and thus perform better. This means that those students, who believe in their ability to learn the language and put effort into it, can perform well. Research has shown that students who are self-efficacious make use of deep level learning strategies (i.e., both cognitive and metacognitive) and regulate their effort. These learners also persist longer at a task (Pajares & Schunk, 2001; Zimmerman & Martinez-Pons, 1990). Additionally, these learners are observed to have personal goals and work towards achieving these goals despite set backs (Pajares, 1996;

Schunk, 1991). On the other hand, those students with low-self efficacy, see themselves as failures and lack competence (Bandura, 1989).

The results suggest that students might start the preparatory program feeling confident that they can achieve success and execute academic task successfully. When the efforts do not result in success, especially as in the case of current repeaters in the preparatory program, they might give up on the learning process (Schunk, 1984). In the semi-structured interviews, there were students who repeated a course in the past and there were those who were currently repeating the level. The students' comments on their previous or current experience of failing reflected their heightened self-efficacy beliefs. One past-repeater commented that, in the last end of course assessment exam, she studied hard and said to herself "I can do this one." A student currently repeating stated that he started as a student, studying low level English, and now he is advanced and he could see a "tremendous change" in himself. One of the non-repeaters stated that she knows she will do her best and get the benefits. In the preparatory program, a student who starts at A1 level (i.e., the lowest level) expecting to reach B2 level (i.e., higher level) has around ten-month period to successfully complete their studies within the intensive program. Reaching proficiency in a short period is a demanding task (West, Güven, Parry, Ergenekon, Aşık, Aydın, & Yılmaz, 2015) and requires effort and appropriate use of learning strategies.

Contrary to the results of this study, one could expect both of these groups of students (i.e., past and current-repeaters) to possess low self-efficacy and focus on their failures (Bandura, 1989; Yancey, 2014). Within the context of the university's

preparatory program, even those who repeated a level in the past and currently repeating seems to hold relatively higher self-efficacy beliefs.

It is possible to think, in line with literature, that repeated negative experience might result in giving up on the learning process due to failure in early efforts (Schunk, 1984). When reflecting on their self-efficacy beliefs the students in all three groups referred to the exams, implying that they were felt a sort of pressure to be successful in their studies. It might be inevitable for students preparing for exams to have efficacy judgements about their skills, knowledge and capabilities. However, in reflecting on their strong beliefs in their abilities to be successful, the students stressed the importance of employment of rehearsal, critical thinking and metacognitive self-regulation strategy use and regulation of their efforts even in the face of potential distractions (Pintrich & Garcia, 1991), such as the psychological pressure they experience due to exams.

The good experiences of the non-repeaters seem to have positive influences on their motivation. Similarly, as reflected in both qualitative and quantitative results of this study, the negative experience of the current and past-repeaters does not affect their perception and response in a negative way. In language learning context, keeping in mind that practice makes perfect, the learner should be encouraged to utilize appropriate learning strategies to revise what is taught in class.

Those students who find the tasks useful (i.e., utility value) for some future purpose have shown to possess less test anxiety. This relationship between utility value and test anxiety was only significant for non-repeaters and past-repeaters. This shows

that for these students the importance placed on understanding the subject matter and learn the course material led to test anxiety. Utility value mainly reflects the subjective importance that an activity may have for a person. Thus, the more one ascribes value to a task, such as one's studies, the more likely one is to experience test anxiety. In support of this claim, Morris and Fulmer (1976) showed, in an experimental study, that the more important a test was for university students, the more their worry occurs. If one is a current repeater in the preparatory program, she or he might fear future failures as this might result in dismissal from the university. Inevitably, these students may think about how poorly they are doing compared to others, the consequences of failing and have upset feeling during the test. The positive association between utility value and test-anxiety is expected since within the context of this study, where the exam serves to provide reports of achievement at certain intervals (Harlen, 2006) and makes decisions on students' further work, the value may be ascribed to exam-type materials and tasks. The students might believe that passing these will enable the learner to move further in their studies. This finding is consistent with Schunk and Ertmer (2000) in that the perceived value of a learning task, such as a possible exam task, is important. However, for the currently repeating group, the relationship between task value and test anxiety is non-significant. This could be because test is highly valued by significant others (e.g., parents) and that these students need to show the significant others that they are self-efficient and that they will achieve success in order not to let them down. Thus, these students may be coping with this situation to protect their self-worth out of the fear of disappointing the parents (Cassady & Johnson, 2002).

Both self-efficacy beliefs and utility value were found to serve as significant and positive predictors of surface level strategy use (i.e., rehearsal) and deeper ones (i.e., critical thinking and metacognitive self-regulation) for all students before the inclusion of reasons for learning (i.e., intrinsic reasons) and concerns related to self in the model. This finding extends Eccles et al.'s (1983) expectancy value model, which posits that perceptions of utility value are positively related to persistence, performance, and task interest. In other words, utility value influences the choice of activities and expenditure of effort on the task (Eccles et al., 1983; Wigfield & Eccles, 1992, 2000). Additionally, in line with motivation literature, those students who value tasks highly, engage in the tasks cognitively through application of cognitive and metacognitive regulation strategies (Schiefele, 1991; Wigfield & Eccles, 2000, 2002).

The findings of the qualitative phase of the study revealed that the students give importance to learning vocabulary and that they employ rehearsal strategies when they revise vocabulary. The quantitative supported this finding in that the results showed a significant and positive relationship between utility value and rehearsal. Rehearsal strategies be useful in revising and reciting words and definitions or copying notes. While an initial practice through rehearsal strategy is useful, this should be followed by making connection between new and existing information in order to increase the probability of remembering it. As stated in the literature, and as reflected in the findings of this study, utility value may promote initial engagement through surface level learning strategies such as rehearsal (Hidi & Harackiewicz, 2000) and may later encourage the use of more critical thinking. That is, the students may see that rehearsing may not be enough to deeply understand a text. Such initial

importance placed on the rehearsal of vocabulary could be due to the importance students attach to the tests. Additionally, these students may believe in their ability to memorize vocabulary from a set of wordlists. However, it is often observed that they may not put this knowledge into practice in a reading, listening, writing, grammar and vocabulary assessment task. In other words, a student may handle a task through memorization of vocabulary because she or he is motivated that learning vocabulary will help achieve success. However, since memorization stays at a surface level, students may not deeply understand what is read or listened to. Upon rehearsing the vocabulary or grammatical structures, it is important for the student to use these in further sentences. Otherwise, the student may not be able to produce a properly written work that expresses his/her opinion using the vocabulary and grammar studied. This could suggest that s/he may repeat certain levels since s/he may not possess the necessary strategies to put the learnt knowledge into practice. Thus, as Oxford (2008) suggests, “rather than mere passive receptacles for knowledge, learners [should] become thinking participants who can influence both the processes and the desired outcome of their own learning” (p. 52). Watkins and Hattie (1985) and later Gow and Kember (1990) found that most students in undergraduate courses become increasingly surface level in their orientation to learning, using rehearsal strategies and that they employ less critical thinking and metacognitive regulation strategies. Within this context where high-stakes exams are prevalent, educators should emphasize the role of using deep approach to learning whereby the students can question and make reasonable judgements.

As reflected in the semi-structured interviews, the students are under the psychological pressure of passing their exams. One of the problems of the current



high school education system may be that the teacher assumes that a learner who repeats and recalls memorized information, concepts, principles and skills presented by the teacher or the textbook can acquire information (Darling-Hammond, 2012). In educational contexts, students make meaning if they are allowed a legitimate voice and control over their learning in the classroom (Lincoln, 1995). Research has shown that students prefer constructive learning environments (Palmer, 2005). Constructivist instruction in such context has been shown to positively predict utility value, self-efficacy and deep processing strategies (Nie & Lau, 2010). Thus, engaging students in tasks and activities that encourage them to construct meaning is essential. Engaged in construction of knowledge, the student actually actively makes own meaning to understand the materials from experience and prior knowledge. Creating a classroom environment with activities, such as problem solving or investigation tasks, which include opportunities for students' active engagement, can help student build confidence in their ability to accomplish tasks.

The results of this study revealed a significant association between self-efficacy and test anxiety, but this was found to be a negative association. This is consistent with the research that has shown that students who have self-efficacy believes can regulate their learning better (Bandura, 1986; Boekaerts, Pintrich, & Zeider, 2000; Schunk & Ertmer, 2000) and have less anxiety during exams. On the other hand, Meece, Wigfield, and Eccles (1990) have noted that those students who lack self-efficacy beliefs may experience more anxiety. The consistency with the results of existing research is also evident in the findings of Eccles and Wigfield (2002). These researchers found that if a person believes that he or she can achieve a task, he or she is more engaged and thus perform better. Test anxiety may result from various

factors other than efficacy beliefs, including poor preparation for the exams, performance comparison with peers and desire to prove self to others. Thus, it is important for educators to understand reasons behind anxiety and cater instruction towards helping learners lower their anxiety by encouraging them to regulate their learning.

Although students may experience feeling anxiety at some point in their life, some learners may be affected seriously (Spielberger & Vagg, 1995). The qualitative results suggest that students may be experiencing test anxiety due to parental pressure. The parents may put pressure on the learner so that they complete their studies in the preparatory program and continue with their respective studies as soon as possible. While this pressure may be put on the learner with all good intentions, it could create more frustration and anxiety on the part of the learner. Frustration and anxiety can impede learning (Rose & Harbon, 2013). When students fail due to test anxiety, it could lead to low self-esteem, physiological reactions and consequently low performance on the test.

### **Intrinsic reasons and self-worth concerns**

When intrinsic reasons and self-worth concerns were introduced into the prediction of the studied outcomes in Step 2 of hierarchical regression model, intrinsic reasons was found to be positive and stronger predictor of, rehearsal, critical thinking and metacognitive strategies and study efforts in the three groups. This finding reveals that intrinsic reasons can play a key role in educational settings where the students experience pressure to be successful. Research has also shown that it is intrinsic reasons which serve as reasons that encourage students to make use of effective

learning strategies (Dompnier, Damon & Butera, 2009; Michou et al., 2014; Vansteenkiste et al., 2010). Contrary to the intrinsically interested learner, the extrinsically motivated learner will put effort into the task and perform an activity to avoid feelings of guilt and failure and impress others with his/her success (Noels, Clement, & Pelletier, 2003). As such, self-worth concerns consistently predict rehearsal and test anxiety. Indeed, research supports the relationship among self-worth concerns and preference for each of the following: less challenging tasks, giving up when faced with challenges and more frequent utilization of surface level learning strategies, such as rehearsal (Ames, 1992; Church, Elliot, & Gable, 2001; Deci, Koestner, & Ryan, 1999; Elliot & Church, 1997). More specifically, Wang's (2008) study, which explored university students' English learning orientations found that those students who were more concerned about what others will think of them focused more on surface level learning strategies. In relation to this finding, regardless of the negative thoughts students in the preparatory program had towards the language proficiency tests, all three groups perceived themselves to be engaged in academic tasks to attain personal mastery, satisfy curiosity and to be willing to meet a personal challenge over and above their perception of how useful the course is.

The findings also confirm previous research that suggests that students who have intrinsic reasons for learning choose to put more effort, have less test anxiety, and tend to use both rehearsal, cognitive and metacognitive strategies (Halonen, 1995; Pintrich & Garcia, 1991; Schiefele, 1991). The presence of consistent positive relations between intrinsic reasons and effort regulation in Step 2 of the hierarchical regression analysis is in line with research dealing with intrinsic motivation and

suggests that students with intrinsic reasons believe that effort regulation can help improve their ability to learn even when performance is poor (e.g., Ryan & Deci, 2017). Even in such instances, higher levels of intrinsic reasons have been found to be associated with higher levels of strategy use (Elliot & Church, 1997; Wolters, Yu, & Pintrich, 1996). As students strive towards achievement in learning English in the preparatory program where there are demands, challenges and setbacks, they work towards developing their own skills and competence. Cultivation of feelings of competence and skills development is important in underpinning intrinsic motivation. In fact, intrinsic motivational processes are believed to help sustain engagement in learning the language (Ryan & Deci, 2000).

In the semi-structured interviews, students from the three groups reflected on challenge seeking (i.e., intrinsic reasons) in their learning process. Within the preparatory program context, the students can become eligible to sit the end of level exam if they achieve a certain grade from two achievement exams, one administered at mid-course and the other at the end of the course. If the learner achieves success from the end of level exam, they can continue their studies in the next level. Thus, the quantitative results and student reflections suggest that although the students may fail on the exams, this does not mean that they have lost their intrinsic motivation to learn. Even those who reported more anxiety due to exams and parental pressure in the interviews, were intrinsically motivated to utilize learning strategies. Research suggests that too much anxiety may decrease the attention (Cassady & Johnson, 2002; Spielberger & Vagg, 1995) and distract their concentration and thus lead to low self-esteem, physiological reactions and consequently low performance on the test (Rose & Harbon, 2013; Zeidner, 1998). Contrary to research, the results of this

study suggest that students may actually be intrinsically motivated and regulate their effort, employ surface and deep level strategies despite their failure once or more than once. The students reported the employment of the following strategies:

1. grouping certain lexical items under a category;
2. repeating the words to self;
3. memorizing a list of vocabulary items;
4. linking words to visual images;
5. creating stories with the words as used to do in high school; taking risks by trailing the vocabulary studied in writing;
6. reading the text in detail to infer what a phrase means;
7. keeping the “gist” of what has been read or listened to in head as they tried to keep in mind and relate;
8. asking teachers for clarification of something they did not understand;
9. consulting grammar books;
10. watching “Youtube” to clarify grammar points to self.

While the first four in the list refers to surface-level processing, the strategies fifth to seven refer to deeper-level processing and the last three refers to meta-cognitive processes. While research suggests that those students who have autonomous-intrinsic reasons for learning choose to use deep learning strategies (Pintrich, 1999, Schiefele, 1992; Schunk & Ertmer, 2000; Xiaodong & Pingchung, 2001), employment and combination of these strategies are important to achieve success within the program. The need for interaction between motivation and meta-cognition is emphasized in literature (Ushioda, 2014). Given the context of the study, where students take multiple choice exams and where penalty for guessing is in place, the

students should be studying to understand rather than memorize. Research also suggests that whether the students experience failure or success, they will be intrinsically motivated and create their own rewards (Dörnyei, 2002). The reward for these students may be the satisfaction they get from understanding a topic because they have been critically engaged in it.

Self-worth concerns were not statistically significantly related to critical thinking, but positively predicted test anxiety. In line with self-determination theory (Ryan & Deci, 2017), students who act to show their worth were found to be anxious in tests (Lawrence & Williams, 2013) and utilize less effective learning strategies (Vermetten, Lodewijks, & Vermunt, 2001). According to Deci and Ryan (1991), a student may identify with the value of the activity or may accept the value only to satisfy obligations to others. While the first refers to pursuing an activity in a self-determined way, the latter refers to involvement out of external pressure. This latter group of students who may prefer to be engaged in a task to prove or protect their self-worth are considered ego-goal oriented (Covington & Omelich, 1979). For these students, the achievement situations are occasions for them to demonstrate their ability to others if and when they perceive themselves able to succeed. However, in cases where they doubt their ability, they may want to avoid being seen incapable by making efforts. Students with ego-involved goal orientations are more likely to experience high anxiety as they focus on their self-worth. This may be detrimental, especially in learning environments when the learning environment is high anxiety arousing. This may be because students who are more focused on protecting themselves due to self-worth concerns tend to be under more psychological pressure. These students may try to protect themselves and utilize less effective learning

strategies. The qualitative data also supports this in that the students, irrespective of their status reflected on the crucial role parents play in their language learning quest. Some of these students stated that the parents can make them feel at unease at times. The comments passed by the students reflected that there was an attempt to protect their ability status. As reflected by the current and past-repeaters, their lack of success and slow progress did not lower self-efficacy beliefs. Rather these learners were aware that they needed to change and adjust their approach by expending effort and using more effective task strategies (Schunk, 1995). The results of this study thus revealed that the negative impact of extrinsically controlling reasons, such as those related to protection of self-worth concerns, were transformed to intrinsically regulated events reflecting intrinsic engagement. Ushioda (2008) revealed that the intrinsic motivation encouraged greater involvement and employment of effective thinking and problem solving strategies.

Self-worth positively predicted metacognitive regulation for non-repeating and past repeating students. The non- and past-repeating students seem to have increased concerns related to their self-worth and report that they consciously use metacognitive strategies. They do so because they believe significant other expect this. The non-repeating group never repeated a level. The past-repeaters repeated a level previously and later achieved success. It seems that for these students it is important to maintain their self-worth. Since for these students, self-worth stands out to be important, they may possess failure avoidance strategies and tendencies by closely monitoring and regulating their use of cognitive state. According to Elliot and Harackiewicz (1996), it is the resolution of the conflict between approaching a task with intrinsic reasons and fear-inspired tactics that determines the degree to

which the students care about learning. The positive relationship between self-worth concerns and metacognitive strategy use suggests that these students may have been able to resolve the conflict and favour intrinsic reasons for learning as intrinsic reasons stand out to be a positive consistent predictor of metacognitive regulation in all groups.

Self-worth concerns predicted rehearsal across three groups. The level tests in the preparatory program consists of multiple choice grammar and vocabulary which might encourage memorization. Thus, a student may rehearse and memorize as she or he fears failure. In doing so, they may not see the value in consolidating and the information that they have encountered. The students' awareness that surface level knowledge may not be enough to learn the material and that it is important for them to move to deeper levels of learning.

### **Implications for practice**

The results of this study revealed that irrespective of whether students had passed or failed their English exams, they valued their language learning experience and retained their self-efficacy beliefs. Furthermore, they regulated their effort by making use of surface and some of the deep level learning strategies. Above and over utility value and self-efficacy beliefs was that these students in the preparatory program possessed intrinsic reasons for learning. Intrinsic reasons encouraged students to regulate their effort and employ some effective learning strategies even in the face of challenges. However, as these students were experiencing pressure to be successful in the tests, they exhibited self-worth concerns that hindered them from employing critical thinking strategies. Although limited to a small sample in a single university,



the quantitative results and qualitative findings of this study have implications for teachers, students, parents and university preparatory programs in Turkey.

Students enter the classroom with many expectations, beliefs and prospects about the particular teaching and learning environment. Especially within the Turkish context, some of these students may come from a high school education system that emphasized rote learning and memorization, which many educators, parents, and students believe are essential to pass university entrance exams.

When students enter an English medium university, they need to show their proficiency in English. Inevitably, the performance is evaluated in the preparatory year and the exams are decision makers as to whether the students can progress to the next level or to their respective departments. Within the context of this study, if the students fail over two academic years, they are dismissed. Thus, it is possible that the motivation to avoid failure is heightened in particular students. With so much variety in the classroom, it becomes important for educators to understand how factors such as motivation and learning strategies influence individual students' language learning process and progress.

The findings of this study show that promotion of value and self-efficacy beliefs and intrinsic reasons for learning in the preparatory programs' are important. The findings also emphasize how such beliefs can encourage students to be confident language learners, equipped with effective learning and self-regulation strategies. Thus, it is important to show the learners, through course design and delivery, that successful employment of and combination of various language learning strategies

can help them become self-regulated learners who are self-efficacious, autonomous and intrinsically motivated.

The results of this study revealed that valuing tasks plays an important role in effort regulation and persistence on task. A perennial question that might be asked by the students is “Why are we learning this?” since it may be hard for students to see the value or connection between the course material and their lives outside the classroom (Eccles et al., 1983). Perceptions of relevance and usefulness have been shown to play an important role in motivation and persistence. As Renninger (2000) highlights, utility value can empower learners to be engaged in the task in a repeated manner and thus deepen their interest. Thus, it is important for teachers to design tasks and related materials that show to the students the benefit and the relevance of these activities for their future use. Teachers could also stress how the designed learning tasks and activities are “relevant” to the “real world” or in future jobs (Frenay & Bédard, 2011). Additionally, through provision of choice and control over the academic activities, teachers can increase the utility value of the tasks. Brophy (1999) proposed that one of the most important strategies teachers can utilize would be “scaffolded appreciation” in that they show their own enthusiasm and positive feelings for the tasks and activities. From the very beginning of the course, teachers can clarify the utility value of learning English as they present course goals to the students. Throughout the course, teachers can share their experience in learning the language and how useful it has been and will be in the future. Through such expressions, the teachers can increase the perceived value of the course.

In addition to utility value, self-efficacy beliefs are also important in promoting student engagement and learning. Teachers tend to wonder why some students are involved and engaged; whereas, others are disengaged. Those students who possess self-efficacy beliefs believe that they can “organize and execute courses of action required to produce given attainments” (Bandura, 1997, p.3). Such students with self-regulatory behavior possess efficacy expectations in that they believe that they can perform a task effectively to achieve certain goals. Bandura et al., (2001) found that those who have high academic expectations achieve success in their subsequent performance. In this study, the students, regardless of their status, reflected that they have beliefs in their ability to perform well on the exams. Thus, teachers should encourage students to learn and employ self-regulatory strategies and encourage them to believe in their ability to learn. Such training can be done through effective instructional practices which foster strategic learning and equip students with learning strategies to help them achieve academic success in language learning.

When possible, teachers can ask students to state their personal goals. Verbalization of the goals can provide data for teachers to understand whether the students are interested in mastery of the language or performance to protect their self-worth (Covington, 1984). In the context of this study, in which achievement is valued, it is important to work with students to increase their self-efficacy beliefs in performing academic tasks. There could be students in the classes who have low self-efficacy beliefs and thus fear failure. The current findings of this study imply that those students who possess self-worth concerns use rehearsal strategy but not critical thinking strategy. The importance of coupling the surface and deep-level strategies should be modeled so that students can see the value of both in academic success. If

the focus stays on self-worth concerns for these students, they might lack self-efficacy beliefs for highly valued tasks in their attempts at protecting their self-worth. Thus, it is important for teachers to work in collaboration with the students in setting realistic goals and accurate expectations. While such collaboration could take place in the classroom setting through certain activities, they can also be in the form of one-on-one counseling. Students can work towards mastery of their goals through self-monitoring. Such control over their learning increases students' self-efficacy beliefs which can allow students to persist in academic tasks.

In order to promote self-efficacy beliefs, the four factors which are identified by Bandura (1977) can be made use of in teaching the language. One of these factors is performance accomplishments. Performance accomplishment can be facilitated by providing repeated successful experiences (Bandura, 1986; Dörnyei, 2001). Teachers can provide learners with such experiences through provision of meaningful tasks which the students are able to do and similar tasks in non-monotonous ways. Another factor identified by Bandura (1977) is vicarious experience. Such vicarious experiences can be provided by guiding students to overcome ego-threatening tasks. This can be done by showing them how to use learning strategies and having them observe peers who can overcome such challenges. Verbal persuasion is another means by which self-efficacy beliefs can be enhanced. This can be done by providing students with positive and encouraging feedback. Finally, it is important to reduce anxiety. For this, it is important to provide a classroom atmosphere, which is non-threatening and conducive to learning. It is also important to identify anxious

students and help them overcome anxiety. Activities can be designed in such a way that they provide learners with opportunities to maintain a positive self-image (Williams & Burden, 1999).

As stated earlier, provision of accurate feedback on students' progress is necessary. As suggested by Andrews and Debus (1978) feedback can enhance motivation if it convinces the students that they can improve if they persevere. In the feedback sessions, the students can share their perception of their progress in language learning and can be provided with information regarding their progress by the teachers. Such feedback sessions can help teachers to understand student choice, interest, stress levels and presence or absence of certain strategies. It can also be an opportunity for the teacher to encourage students to improve their self-efficacy beliefs. Specifically, in the preparatory program setting, students produce many essays and get feedback on their written work. The feedback could boost learners' self-esteem rather than developing the existing incompetence. During the feedback sessions, the teachers can encourage students to reflect on their own performance and help them build realistic expectations. Teachers can elicit the possible strategies used by the students and explicitly communicate to the learners ways of employing strategies to help them approach tasks with higher levels of confidence. Judgmental feedback may be detrimental to not only intrinsic reasons but also for efficacy beliefs, especially when self-beliefs are very dynamic around 18-22 years of age (Dunkel & Anthis, 2001), i.e. the age group studying at the preparatory program. Teachers' role in promoting students' self-regulation strategies is important in fostering students' self-regulation in learning. Teachers can train students to be strategic learners by showing them the potential strategies and guiding them to

choose and monitor appropriate strategies. Teachers can provide intervention within their design and delivery which can help students have a positive learning experience and gain positive outcomes in their performance. Such intervention should provide students with ample practice opportunities to help them internalize the learning strategies. One of the ways to provide such an opportunity would be to provide explicit instruction through modeling of the learning strategies (Pressley, El-Dinary, Wharton-McDonald, & Brown, 1998). During instruction, if the teacher views that the student is concerned about a learning task, the teacher should lower the level of the difficulty of the task. This could be in the form of provision of prompts or further examples. If the teacher sees that the student is responding to a task with increased effort even in the face of challenges, the teacher should deliberately increase the difficulty level of the task and related task expectations.

Teachers should also change their teaching paradigm to one that encourages learner independence rather than dependence on the teacher both in and out of classroom (Song & Cheng, 2006). Designing learner centered courses which encourage students to take control over their own learning is crucial. Engaging students in tasks that encourage them to plan, organize and persevere as well as reflect on ideas and experiences can increase the level self-regulation, which is positively associated with learner success. Thus, it is important to cater instruction whereby the students engage learners in problem solving tasks. As Bronson (2000) noted, “self-directed learning, problem solving, and action can occur only when the ability to control thinking or behavior is accompanied by the wish to do so” (p. 55). It is important to keep in mind as teachers that students can transform the negative impact of extrinsically controlling orientations into internally regulated events through provision of

opportunities for controlling their own learning. Thus, instruction should be catered towards teaching students to become self-regulated learners who are actively and constructively involved in the learning process as processors of knowledge (Garcia & McKeachie, 1993) through the use of appropriate learning strategies (Winnie & Perry, 2000). Such involvement in the task, can encourage learners to approach the tasks with higher levels of confidence in their ability to achieve with self-initiated interest and joy.

The students reflected that they possess high anxiety levels. Some students linked this anxiety to parental pressure. This has implications for students, teachers and parents. The students should work towards being calm in their learning process. A good advice on how to deal with test anxiety was provided by one of the non-repeating students. The advice was to avoid environments where the exam is discussed especially before and after the exams. These students, either during instruction or on one-on-one tutorial, can be advised to focus on learning the language rather than passing the exams. If these students are observed to be motivated to avoid failure, they can be approached to work together on the employment of successful learning strategies. Those students who may be viewed by their teachers to invest low effort on tasks can be approached individually and attempts at changing their failure expectancies to success expectancies should be made by making the aversive impact of anxiety on performance. Close work with these individual students can be carried out to help them in their struggle to learn the language. Working closely with these students, teachers may employ “think aloud protocols” (Wittrock, 1987) whereby they model their own strategies to serve as exemplary practice for learners. Teachers can also ask learners to keep journals to

reflect on their learning progress with specific reference to use of strategies. It would be important to communicate to the repeating, and even all students that it is important to value the tasks, persevere and work towards understanding rather than exams. In short, teachers should serve as guides to the learners and inform them regarding the strategies they can use to avoid test anxiety and progress through levels.

Parents, too, have a role to play in guiding their children within this psychosocially pressing context students experience pressure to perform well. They can do so through listening to their children and guiding them to consult their teachers for guidance and help on strategy use. Rather than imposing strategies on students, parents can communicate with the students to understand which strategies they use and guide the students accordingly based on their own experience in the use of strategies. Parents can also help their children set their own goals and converse later with them regarding their own progress in a non-judgmental manner. In fact, research has shown that higher levels of self-compassion are associated with lower levels of anxiety (Geurtzen, Scholte, Engels, Tak, & van Zundert, 2015; Neff & McGehee, 2010)

### **Implications for further research**

This study focused on the relationships among motivation components of utility value, self-efficacy beliefs, intrinsic motivation and learning strategies of effort regulation, rehearsal and critical thinking at a preparatory program in Turkey. The beliefs of the learners regarding their perceived achievement (i.e., success versus failure) in their language learning experience were also examined. The results of this



study are specific to the preparatory program in Turkish context. Although the findings cannot be generalized to other preparatory programs in other countries or even in Turkey, the findings have yielded important information regarding the relationship between motivational constructs and learning strategies for second language learning in a context where the students might be experiencing psychological pressure to pass their exams. Replication of this study in other preparatory programs would help further explore the relationship between motivational constructs and learning strategies.

The data was gathered from preparatory program students who were studying in the program in 2015-2016 academic year. Those students who had entered the program in the year 2014 and had been repeating a level since then were also included in the study. Despite the number of repetitions, the findings revealed that all students, irrespective of their past experiences, studied for intrinsic reasons and employed surface level and deeper level learning strategies. A follow-up study with students who will be studying in the 2017-2018 academic year and later cohorts could be carried out to further investigate the consistency of results within the preparatory program.

This study utilizes exploratory sequential mixed methods case study research design. The qualitative phase of this research provided valuable findings into the perceptions of students about their success and failure within the preparatory program setting. It is advised that researchers investigate students' perception of their own language learning process within their own context and follow this through quantitative phase. Specifically, this present study focused on the association among utility value and

self-efficacy beliefs, intrinsic reasons and self-worth concerns and effort regulation, learning strategies and test anxiety. The researchers can design and implement the quantitative strand to better understand the context in which the study is carried out. Additionally, the researchers can also design concurrent mixed-methods research design to elaborate on the quantitative results rather than a sequential design.

This study investigated, through hierarchical regression, whether intrinsic reasons and self-worth concerns would explain, variation in effort regulation, learning strategies and test anxiety, controlling for utility value and self-efficacy. Future research can use Structural Equation Modeling techniques to explore complex and reciprocal relationships among these variables.

Intrinsic reasons for learning was found to be the consistent, single and significant predictor of critical thinking across effort regulation and learning strategies across groups of students with different histories in terms of success and failure. This finding extends other research (Vansteenkiste et al., 2005) and further research can be conducted to extend such empirical research to investigate the association among intrinsic reasons and deep-level learning strategies.

The semi-structured interviews were conducted with students only. Analysis of qualitative results reveals that teachers and parents also have a role in the language learning progress of the learners. Thus, the perceptions of teachers, parents and even administrators can provide more insights as to why certain students experience failure.

The scales of MSLQ (Pintrich & De Groot, 1990) is used for a specific situational context of language learning. As assumed by Rotgans and Schmidt (2009), students' motivational beliefs and learning strategies may not be specific to only language learning. Thus, future research can focus on motivational beliefs and learning strategies with a focus on investigation learning patterns across different subject areas. This could mean carrying out research to investigate the association of motivational beliefs and learning strategies of students as they take variety of courses within their respective departments. As such, demographic data gathered from the students also includes faculty information. A further research can be conducted in which faculty information could be used to examine as to whether there are differences in the relationship among value and efficacy beliefs, intrinsic reasons for learning and concerns related to self and learning strategy utilization of students from different departments.

### **Limitations**

There are a number of limitations to the present study. The first limitation of the study is the generalizability of the short version of the MSLQ that was used in this study. The marginal internal consistency of utility value, intrinsic reasons and effort regulation may pose some threat to the construct validity due to the number of items used. On the basis of the small number of items in the utility value subscale ( $n = 3$ ), intrinsic reasons ( $n = 2$ ) and effort regulation ( $n = 4$ ), the observed alpha was deemed acceptable (Hair et al., 1998). Instead of presenting only the Cronbach alphas, some evidence regarding the non-overlap among the four predictors and the non-overlap of the dependent variables (and thus the unidimensionality of each of the construct that

we used in the analyses) was presented through Confirmatory Factor Analysis (CFA). The CFA yielded good model fit. In this way, it was ensured that the investigations of the variables are grounded in theory and only relevant scales discussed in literature were included in the study. As such, the researchers are advised to examine the MSLQ in detail and use appropriate scales in accordance with their studies.

A related limitation concerns the construct validity of the MSLQ. In this study, the utility value was assessed separately from intrinsic reasons for learning. Only three items from the 6 items of task value component was used. Although item 17 (i.e., “I am very interested in the content of this course”) semantically represents intrinsic reasons with the wording, the factor analysis revealed that the item refers to utility value for the Turkish participants within the context of this study. This could be because within the Turkish context, the word “interest,” this can be perceived in terms of usefulness of course material. As suggested by research subscales of MSLQ could be dependent on the learning context (Pintrich, 2004; Rotgans and Schmidt, 2009). Given that students in different contexts may perceive the questions on the questionnaire differently due to contextual differences, future research should examine the factor structure of the subscales prior to conducting research within the chosen context.

Additionally, it is important to recognize that there are other factors that are included in the literature as affecting language achievement such as aptitude, classroom activities and teacher behavior. Some of these factors were not included in this study.

Thus, the results will be interpreted in accordance with the main aim of this research. However, researchers are advised to investigate other factors.

Another limitation of the study concerns the methodology employed. The study drew on the results of the self-report data along with supplementary views from the semi-structured interviews. As stated by Pintrich and De Groot (1990) self-regulation is a dynamic process occurring in various stages and thus the questionnaire can only provide a snapshot of the phenomena in the context of the study. A possible limitation could be that the data were collected cross-sectionally. Thus, future studies may use longitudinal data to investigate the development of these motivational aspects and learning strategies and their relations. A related limitation is the self-report nature of the questionnaire. There could be factors that might have affected students' responses to the questionnaire. It is also possible that some participants may not actually employ the strategies they claimed to do through the questionnaire. The potential source of bias associated with such responses in the self-reported data may serve as a limitation. These suggest that future studies which could employ classroom observations might prove useful to understand students' use of learning strategies and related motivation.

Another further limitation of the study is that the results of this study may be limited to the language preparatory program the researcher is teaching in. Therefore, the results will yield information on the group of students the researcher will work with, within the particular context of this private university. Thus, it is not be possible to generalize the findings to other preparatory programs of other universities.

A final limitation of this study is that in this study multilevel analysis could not be conducted. This was because in the data collection phase class membership was not collected from the students. However, future scholars might include class membership for multilevel analysis.

### **Conclusion**

In this exploratory sequential mixed methods case study research design, the qualitative analyses revealed that the students studying in a preparatory context value class activities, believe in their abilities and competence and possess different reasons for which they might engage in an activity and utilize a variety of learning strategies. The qualitative analyses led to the quantitative analyses. The aim of the quantitative analyses was to investigate the relationship between utility value and self-efficacy beliefs relate to effort regulation, test anxiety, rehearsal, critical thinking and meta-cognitive self-regulation. Further, motivational constructs of intrinsic reasons and self-worth concerns, were also investigated for the additional variance they would explain in students' use of surface and deep learning strategies, anxiety on the exams and effort regulation. These relationships were investigated for the three groups of students: non-repeating, past-repeating and current-repeating.

The results of the study revealed that intrinsic reasons played a key role in regulation of effort and learning strategy utilization in all three groups of students. This finding indicates that despite their past achievement histories, students have an intrinsic interest in challenging tasks. Such intrinsic interest results in active engagement which in turn results in application of effective learning strategies.

Specifically, both intrinsic reasons and self-worth concerns were consistent predictors of rehearsal across all groups, making both utility value and self-efficacy beliefs nonsignificant predictors of rehearsal in the current-repeaters group. Rehearsal is a surface level learning strategy and it can be effective if it is followed by a deeper level learning strategy such as critical thinking. Rather than avoiding challenging tasks and having negative feelings following failure, those students who failed once or more than once showed that they have a preference for challenging tasks. However, the relation between self-worth concerns and rehearsal suggests that students may utilize superficial surface level strategies in order to show their self-worth to significant others. The positive relationship between self-worth concerns and test anxiety is indicative of the fact that students may possess anxiety due to pride associated with success.

It is crucial to help learners overcome their anxiety and show them the role of surface level strategies and how this should be followed through by deeper level strategy use. As indicated in the findings of this study, the more self-efficacious the students are in their ability to learn, the less anxious they are. Therefore, it is important to help learners enhance their self-efficacy beliefs and show them how such beliefs can help with utilization of effective learning strategies. Such relationship between self-efficacy beliefs and learning strategies were reflected in the findings of the study. As such, self-efficacy positively predicted effort regulation in the non-repeaters and current-repeaters group, predicted metacognitive self-regulation across all groups and marginally predicted critical thinking in both the current and past-repeater groups.

In conclusion, this study adds further empirical evidence that it is important to create challenging, interesting and relevant tasks to the students. It is also essential to convince them that they are capable and encourage them to be actively engaged in the tasks through effective use of self-regulatory strategies.

## **Reflections**

In this part of the dissertation, the researcher will use “I” language to reflect on how this research contributed to her understanding. Being a teacher and a researcher within the context in which this dissertation was carried out, this research contributed to my understanding of the relationship among motivational constructs and use of learning strategies. Conversing with students who failed a level a couple of times made me question whether these students failed because they had problems in setting specific goals and selecting learning strategies strategically to attain the desired goals. Reading literature, observing student performance and carrying out interviews with the students, I became interested in whether self-efficacy beliefs, consequences of failure, utility beliefs and intrinsic reasons for learning, played a role in students’ utilization of learning strategies. As I had stated in the problem statement, for some students the new instructional period would mean studying at a new level and for others it may be repetition of the previous level. Seeing those students who were repeating a level a couple of times was a concern for me. In my teaching practice, when I entered the classroom and saw the sad faces of the students who had failed, I was worried. I was even more worried when I what these students with sad faces attributed their failings to. There were also students who visited me in the office



hours to reflect on their failure and talk about whether it is possible to make study plans together. All of these made me consider ways through which I could further research into the reasons why these students were failing.

Initially, I wanted to investigate whether all the motivational constructs in MSLQ would relate to the learning strategies in MSLQ for the preparatory program students. In the piloting stage, I became aware that it would be important to keep my research more focused. I realized that it was important for me to investigate how the students perceive themselves as language learners. Thus, I redesigned my research so that it includes the motivational components and learning strategies as reported by the students. Based on the semi-structured interview results, certain themes were identified. Under motivational constructs, students reported value beliefs, reflected on their efficacy beliefs and their reasons for learning as being intrinsic. They also made reflected on their concerns regarding their self-worth. As for learning strategy use, the students reported the use of surface level and deep level learning strategy use as well as study efforts and test anxiety. Within the preparatory program, I thought it was also important to categorize students as non-repeating, past-repeating and current-repeating in order to investigate how the relations between reported motivational constructs and learning strategies would differ across students with different status. The most important finding was that intrinsic reasons was found to be the single predictor of effort regulation and learning strategies in all three groups. Upon this finding, I found myself working towards talking with students both in the classroom and in my tutorial hours about the importance of being intrinsically motivated to learn the language. I have had instances where the students reflected on the utility value and where I had to state that in addition to utility value, they should

be intrinsically motivated to learn. It was also very important to talk to the students about self-worth concerns. I found myself reiterating the role of intrinsic reasons as opposed to being concerned about what others think.

In writing this dissertation, I constantly reflected back to my teaching practice. Upon completion of this research, one of the most important strategies I find myself employing is explaining the purpose of the lesson or assignment clearly to the student. It is useful to explain to the students at the very beginning of each unit why mastering the skills or learning the information in the reading is important. In doing so, it is necessary to state to the learners, how the information or skills they acquire can help them meet their current needs and prepare them for future departmental and occupational success. I also started making connections to the real-world applications to emphasize the importance of the tasks I also give importance to sharing personal stories and thus share my failures with them.

I have always given importance to being a good role model for the students. Upon completion of this research, I integrated modeling of the strategies I would like the students to display more into my design and delivery of lessons. That is, I try to do think aloud protocols where I integrate how I would read or listen to a piece of text using critical thinking strategies. I also show them where more surface level strategies would be useful. I am usually careful to about surface level strategies, such as rehearsal and memorization, as these might be utilized due to failure avoiding pattern out of self-worth concerns. There are students, as was stated in the problem statement, who put a lot of effort into learning English but cannot achieve success. Consequently, these students may adopt a performance goal. This makes them focus

on self-worth concerns. Realizing this, I try to focus the the students on mastery of the language. My aim in focusing the students on mastery over performance is to encourage them to work with more intrinsic interest and get rid of their self-worth. All in all, in my design and delivery of lessons, I try to emphasize that effort regulation and use of strategies to achieve mastery would lead to success and that failure can be remedied through application of effective strategies.

Finally, it is important to note that one of the requirements for successfully completion of the PhD program requires publication of an article. The article has to be produced from the dissertation. The article I have written and the dissertation title are the same. This was a deliberate choice. There independent variables and dependent variables are the same in the article and the dissertation.

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## APPENDICES

### APPENDIX A: Motivated Strategies for Learning Questionnaire (MSLQ) used in the Pilot Study

#### Background Questionnaire

Dear Students,

I am currently conducting research motivational factors and learning strategies that contribute to your language learning progress. The purpose of the study is to examine the relationship between your motivation and language learning strategies. The attached questionnaire asks you about your learning skills, study habits and your motivation in learning English. There are no right or wrong answers to the questionnaire. This is not a test. Please respond to the questionnaires as accurately as possible, reflecting your own learning behavior and motivation in learning English in the Preparatory Program.

Thank you for your cooperation.

| <b>1. Department &amp; Faculty</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                        | <b>2. Age:</b>                                                               |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------|------------------------------------------|-------------------------------------|--|-------------------------------------------|--|---------------------------------------|--|---------------------------------------------|--|--------------------------------------|--|
| <b>3. Sex</b><br><input type="checkbox"/> MALE<br><input type="checkbox"/> FEMALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>4. Please tick your current level:</b><br><input type="checkbox"/> PRE-INTERMEDIATE<br><input type="checkbox"/> INTERMEDIATE<br><input type="checkbox"/> UPPER-INTERMEDIATE<br><input type="checkbox"/> PRE-FACULTY | <b>5. What's your last ECA score?</b><br><br><b>LAST ECA SCORE:</b><br>_____ |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <b>6. Are you 2014 entry or 2015 entry student?</b><br><input type="checkbox"/> 2014 entry<br><input type="checkbox"/> 2015 entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <b>7. Have you repeated any of the levels below? Please tick and state how many times you repeated the level?</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 60%; padding: 5px;">Which level(s) did you repeat?</th> <th style="width: 40%; padding: 5px;">How many times did you repeat the level?</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><input type="checkbox"/> ELEMENTARY</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> PRE-INTERMEDIATE</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> INTERMEDIATE</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> UPPER-INTERMEDIATE</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> PRE-FACULTY</td> <td style="padding: 5px;"></td> </tr> </tbody> </table> |                                                                                                                                                                                                                        |                                                                              | Which level(s) did you repeat? | How many times did you repeat the level? | <input type="checkbox"/> ELEMENTARY |  | <input type="checkbox"/> PRE-INTERMEDIATE |  | <input type="checkbox"/> INTERMEDIATE |  | <input type="checkbox"/> UPPER-INTERMEDIATE |  | <input type="checkbox"/> PRE-FACULTY |  |
| Which level(s) did you repeat?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | How many times did you repeat the level?                                                                                                                                                                               |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> ELEMENTARY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> PRE-INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> UPPER-INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> PRE-FACULTY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |

## Motivated Strategies for Learning Questionnaire

### Part A. Motivation

The following questions ask about your motivation for and attitudes in learning English in the Preparatory Programme. Remember there are no right or wrong answers to this questionnaire, just answer as accurately as possible. Use the scale below to answer the questions. If you think the statement is very true of you circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 & 7 that best describes you.

| Not at all true<br>of me                                                                                                                                   |  | Very true<br>of me |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------|
|                                                                                                                                                            | 1      2      3      4      5      6      7                                        |                    |
| 1. In my classes, I prefer course material that really challenges me so I can learn new things.                                                            | 1 2 3 4 5 6 7                                                                      |                    |
| 2. If I study in appropriate ways, then I will be able to learn the material in my classes.                                                                | 1 2 3 4 5 6 7                                                                      |                    |
| 3. When I take a test I think about how poorly I am doing compared with other students.                                                                    | 1 2 3 4 5 6 7                                                                      |                    |
| 4. I think I will be able to use what I learn in one level in other levels.                                                                                | 1 2 3 4 5 6 7                                                                      |                    |
| 5. I believe I will receive an excellent grade in this class.                                                                                              | 1 2 3 4 5 6 7                                                                      |                    |
| 6. I am certain I can understand the most difficult material presented in the readings for this course.                                                    | 1 2 3 4 5 6 7                                                                      |                    |
| 7. Getting a good grade in my classes is the most satisfying thing for me right now.                                                                       | 1 2 3 4 5 6 7                                                                      |                    |
| 8. When I take a test I think about items on other parts of the test I can't answer.                                                                       | 1 2 3 4 5 6 7                                                                      |                    |
| 9. It is my own fault if I don't learn the material in my courses.                                                                                         | 1 2 3 4 5 6 7                                                                      |                    |
| 10. It is important for me to learn the course material in my classes.                                                                                     | 1 2 3 4 5 6 7                                                                      |                    |
| 11. The most important thing for me right now is improving my overall grade point average, so my main concern in my classes is about getting a good grade. | 1 2 3 4 5 6 7                                                                      |                    |
| 12. I'm confident I can learn the basic concepts taught in this course.                                                                                    | 1 2 3 4 5 6 7                                                                      |                    |
| 13. If I can, I want to get better grades in my classes than most of the other students.                                                                   | 1 2 3 4 5 6 7                                                                      |                    |
| 14. When I take tests I think of the consequences of failing.                                                                                              | 1 2 3 4 5 6 7                                                                      |                    |
| 15. I am confident I can understand the most complex material presented by the instructor in this course.                                                  | 1 2 3 4 5 6 7                                                                      |                    |
| 16. In my classes, I prefer course material that arouses my curiosity, even if it is difficult to learn.                                                   | 1 2 3 4 5 6 7                                                                      |                    |
| 17. I am very interested in the content area of this course.                                                                                               | 1 2 3 4 5 6 7                                                                      |                    |
| 18. If I try hard enough, then I will understand the course materials.                                                                                     | 1 2 3 4 5 6 7                                                                      |                    |
| 19. I have an uneasy, upset feeling when I take my exams.                                                                                                  | 1 2 3 4 5 6 7                                                                      |                    |
| 20. I'm confident I can do an excellent job on the assignments and tests in this course.                                                                   | 1 2 3 4 5 6 7                                                                      |                    |
| 21. I expect to do well in this class.                                                                                                                     | 1 2 3 4 5 6 7                                                                      |                    |
| 22. The most satisfying thing for me in my courses is trying to understand the content as thoroughly as possible.                                          | 1 2 3 4 5 6 7                                                                      |                    |
| 23. I think the course material in my classes is useful for me to learn.                                                                                   | 1 2 3 4 5 6 7                                                                      |                    |
| 24. When I have the opportunity in my classes, I choose course assignments that I can learn from even if they don't guarantee a good grade.                | 1 2 3 4 5 6 7                                                                      |                    |
| 25. If I don't understand the course materials, it is because I didn't try hard enough.                                                                    | 1 2 3 4 5 6 7                                                                      |                    |
| 26. I like the subject matter of my courses.                                                                                                               | 1 2 3 4 5 6 7                                                                      |                    |

- |     |                                                                                                              |   |   |   |   |   |   |   |
|-----|--------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 27. | Understanding the subject matter of my courses is very important to me.                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28. | I feel my heart beating fast when I take my exam.                                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. | I'm certain I can master the skills being taught in this class.                                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. | I want to do well in my classes because it is important to show my ability to my family, friends, or others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. | Considering the difficulty of this course, the teacher and my skills, I think I will do well in this class.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Part B. Learning Strategies

The following questions ask about your learning strategies and study skills for your classes. Remember there are no right or wrong answers to this questionnaire. Answer the questions about how you study in your classes as accurately as possible. Use the scale below to answer the questions. Use the scale below to answer the questions. If you think the statement is very true of you circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 & 7 that best describes you.

- |                          |  |   |   |   |   |   |   |   |  |                    |
|--------------------------|--|---|---|---|---|---|---|---|--|--------------------|
| Not at all true<br>of me |  | ← |   |   |   |   |   | → |  | Very true<br>of me |
|                          |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |                    |
- 
- |     |                                                                                                                                                   |   |   |   |   |   |   |   |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 32. | When I study the readings for my courses, I outline the material to help me organize my thoughts                                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. | During class time I often miss important points because I'm thinking of other things.                                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 34. | When studying for my courses, I often try to explain the material to a classmate or friend.                                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 35. | I usually study in a place where I can concentrate on my course work.                                                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 36. | When reading for my courses, I make up questions to help focus my readings.                                                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 37. | I often feel so lazy or bored when I study for my classes that I quit before I finish what I planned to do.                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 38. | I often find myself questioning things I hear or read in my courses to decide if I find them convincing.                                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 39. | When I study for my classes, I practice saying the material to myself over and over.                                                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 40. | Even if I have trouble learning the material in my classes, I try to do the work on my own, without help from anyone.                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 41. | When I become confused about something I'm reading for my classes, I go back and try to figure it out.                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 42. | When I study for my courses, I go through the readings and my class notes and try to find the most important ideas.                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 43. | I make good use of my study time for my courses.                                                                                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 44. | If course readings are difficult to understand, I change the way I read the material.                                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 45. | I try to work with other students from my classes to complete the course assignments.                                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 46. | When studying for my courses, I read my class notes and the course readings over and over again.                                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 47. | When a theory, interpretation, or conclusion is presented in my classes or in the readings, I try to decide if there is good supporting evidence. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 48. | I work hard to do well in my classes even if I don't like what we are doing.                                                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

|     |                                                                                                                                              |   |   |   |   |   |   |   |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 49. | I make simple charts, diagrams, or tables to help me organize course material.                                                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 50. | When studying for my courses, I often set aside time to discuss course materials with a group of students from my classes.                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 51. | I treat the course materials as a starting point and try to develop my own ideas about it.                                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 52. | I find it hard to stick to a study schedule.                                                                                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 53. | When I study for my classes, I pull together information from different sources, such as lectures, readings, and discussions.                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 54. | Before I study new course materials thoroughly, I often skim them to see how they are organized.                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 55. | I ask myself questions to make sure I understand the material I have been studying in my classes.                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 56. | I try to change the way I study in order to fit the course requirements and the instructor's teaching styles.                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 57. | I often find that I have been reading for my classes but I don't know what it was all about.                                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 58. | I ask the instructors to clarify concepts I don't understand well.                                                                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 59. | I memorize key words to remind me of important concepts in my classes.                                                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 60. | When course work is difficult, I either give up or only study the easy parts.                                                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 61. | I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for my courses. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 62. | I try to relate ideas in any of my courses with those of my other courses whenever possible.                                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 63. | When I study for my courses, I go over my class notes and make an outline of important concepts.                                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 64. | When reading for my classes, I try to relate the material to what I already know.                                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 65. | I have a regular place set aside for studying.                                                                                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 66. | I try to play around with ideas of my own related to what I am learning in my courses.                                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 67. | When I study for my courses, I write brief summaries of the main ideas from the readings and my class notes.                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 68. | When I can't understand the material in my courses, I ask another student in my classes for help.                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 69. | I try to understand the material in my classes by making connections between the readings and the concepts from the lectures.                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 70. | I make sure that I keep up with the weekly readings and assignments for my courses.                                                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 71. | Whenever I read or hear an assertion or conclusion in my classes, I think about possible alternatives.                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 72. | I make lists of important items for my courses and memorize the lists.                                                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 73. | I attend my classes regularly.                                                                                                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 74. | Even when course materials are dull and interesting, I manage to keep working until I finish.                                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 75. | I try to identify students in my classes whom I can ask for help if necessary.                                                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 76. | When studying for my courses I try to determine which concepts I don't understand well.                                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 77. | I often find that I don't spend very much time on my courses because of other activities.                                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 78. | When I study for my classes, I set goals for myself in order to direct my activities in each study period.                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

- |     |                                                                                                      |   |   |   |   |   |   |   |
|-----|------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 79. | If I get confused taking notes in my classes, I make sure I sort it out afterwards                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 80. | I rarely find time to review my notes or readings before my exams                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 81. | I try to apply ideas from course readings in other class activities such as lectures and discussions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



## APPENDIX B: Global Scale Common Reference Levels

|                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROFICIENT USER</b>  | <b>C2</b> | Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.                                                                                                                                      |
|                         | <b>C1</b> | Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.                                       |
| <b>INDEPENDENT USER</b> | <b>B2</b> | Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. |
|                         | <b>B1</b> | Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.                     |
| <b>BASIC USER</b>       | <b>A2</b> | Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.                          |
|                         | <b>A1</b> | Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help                                                                        |



## **APPENDIX C: Semi-structured Interview Protocol**

I would like to welcome you and thank you for coming to talk to me about your language learning experience. This interview should take approximately 10 minutes. The purpose of this interview is to understand your motivations and reasons for learning English and the strategies you employ in learning English. The responses you provide will inform the exploratory sequential mixed methods case study and will help to understand your motivations, reasons for learning English as well as the strategies you employ. In order to facilitate note-taking and accurately note the responses, the interview will be audio taped. These will be privately kept and will later be destroyed by the researcher. Your names will not appear and you will not be individually identified.

Before I start I would like to get your approval. Do I have the approval to continue with the interview and record this interview?

Thank you for volunteering to take part in this research.

### **Semi-structured Interview Guiding/Interview Questions:**

#### **PART I. Questions related to personal background & English Language Competence**

1. What do you major in?
2. Which level are you in?
3. How would you judge your level in English?
  - Follow-up questions
    - What grade did you get on your last End-of-Course Assessment (ECA) exam?
    - Have you repeated a level? If yes, which ones?

#### **Part II. Questions related to Personality**

1. Which three adjectives would you use to describe yourself?
  - Follow-up questions:
    - Please give me some examples of yourself as..X..?
    - Does ..X.. characteristics help you in language learning? If so, how?
2. How do you think your perception of yourself has changed since you started Preparatory Program?- What differences do you notice between you as a high school student and university Prep Program student?

#### **Part III. Questions related to Motivation:**

1. Why is it important for you to learn English?
  - Follow-up questions:
    - After completing your studies in the Preparatory Program, what goals have you planned to pursue?
    - How do you think learning English will contribute to these future goals?
2. What does it mean to be successful?
3. What do you attribute your success/failure to in the courses you study/ studied in the Preparatory Program?
4. What factors may influence your motivation in the courses you study/ studied in the Preparatory Program?

**Part IV. Questions related to Learning strategies:**

1. What are some of the strategies you employ to study for the courses in the Preparatory Program

- Follow up questions:
  - What strategy/ strategies did you use to help you remember the lesson?
  - What did you do when you didn't understand something in the lesson?
  - What did you do when you thought you understood the lesson but saw that you didn't really understand it?
  - How did you review before the End-of-Course Assessment (ECA) exam?



## APPENDIX D: MSLQ Subscales and Related Items

### MSLQ Motivational components and related items

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Value Component</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Intrinsic Goal Orientation                 | <p>1. In my classes, I prefer course material that really challenges me so I can learn new things.</p> <p>16. In my classes, I prefer course material that arouses my curiosity, even if it is difficult to learn.</p>                                                                                                                                                                              |
| Extrinsic Goal Orientation                 | <p>30. I want to do well in my classes because it is important to show my ability to my family, friends, or others.</p>                                                                                                                                                                                                                                                                             |
| Task Value                                 | <p>4. I think I will be able to use what I learn in one level in other levels.</p> <p>17. I am very interested in the content area of this course.</p> <p>23. I think the course material in my classes is useful for me to learn.</p>                                                                                                                                                              |
| <b>Expectancy Component</b>                |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Self-Efficacy for Learning and Performance | <p>5. I believe I will receive an excellent grade in this class.</p> <p>12. I'm confident I can learn the basic concepts taught in this course.</p> <p>21. I expect to do well in this class.</p> <p>29. I'm certain I can master the skills being taught in this class.</p> <p>31. Considering the difficulty of this course, the teacher and my skills, I think I will do well in this class.</p> |
| <b>Affective Component</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Test Anxiety                               | <p>3. When I take a test I think about how poorly I am doing compared with other students.</p> <p>8. When I take a test I think about items on other parts of the test I can't answer.</p> <p>14. When I take tests I think of the consequences of failing.</p> <p>19. I have an uneasy, upset feeling when I take my exams.</p> <p>28. I feel my heart beating fast when I take my exam.</p>       |

| Cognitive and Metacognitive Strategies |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rehearsal                              | <p>39. When I study for my classes, I practice saying the material to myself over and over.</p> <p>46. When studying for my courses, I read my class notes and the course readings over and over again.</p> <p>59. I memorize key words to remind me of important concepts in my classes.</p> <p>72. I make lists of important items for my courses and memorize the lists.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Critical Thinking                      | <p>38. I often find myself questioning things I hear or read in my courses to decide if I find them convincing.</p> <p>47. When a theory, interpretation, or conclusion is presented in my classes or in the readings, I try to decide if there is good supporting evidence.</p> <p>51. I treat the course materials as a starting point and try to develop my own ideas about it.</p> <p>66. I try to play around with ideas of my own related to what I am learning in my courses.</p> <p>71. Whenever I read or hear an assertion or conclusion in my classes, I think about possible alternatives.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Metacognitive Self-Regulation          | <p>33.*During class time I often miss important points because I'm thinking of other things.</p> <p>36. When reading for my courses, I make up questions to help focus my readings.</p> <p>41. When I become confused about something I'm reading for my classes, I go back and try to figure it out.</p> <p>44.If course readings are difficult to understand, I change the way I read the material.</p> <p>54. Before I study new course materials thoroughly, I often skim them to see how they are organized.</p> <p>55.I ask myself questions to make sure I understand the material I have been studying in my classes</p> <p>56.I try to change the way I study in order to fit the course requirements and the instructor's teaching styles.</p> <p>57* I often find that I have been reading for my classes but I don't know what it was all about.</p> <p>61.I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for my courses.</p> <p>76.When studying for my courses I try to determine which concepts I don't understand well.</p> <p>78. When I study for my classes, I set goals for myself in order to direct my activities in each study period.</p> <p>79. If I get confused taking notes in my classes, I make sure I sort it out afterwards</p> |

| Resource Management Strategies |                                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------|
| Effort                         | 37.* I often feel so lazy or bored when I study for my classes                                      |
| Regulation                     | that I quit before I finish what I planned to do.                                                   |
|                                | 48. I work hard to do well in my classes even if I don't like what we are doing.                    |
|                                | 60.*When course work is difficult, I either give up or only study the easy parts.                   |
|                                | 74. Even when course materials are dull and uninteresting, I manage to keep working until I finish. |
| *reversed items                |                                                                                                     |



## APPENDIX E: MSLQ Version used in this Study

### Background Questionnaire

Dear Students,

I am currently conducting research motivational factors and learning strategies that contribute to your language learning progress. The purpose of the study is to examine the relationship between your motivation and language learning strategies. The attached questionnaire asks you about your learning skills, study habits and your motivation in learning English. There are no right or wrong answers to the questionnaire. This is not a test. Please respond to the questionnaires as accurately as possible, reflecting your own learning behavior and motivation in learning English in the Preparatory Program.

Thank you for your cooperation.

| <b>1. Department &amp; Faculty</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                        | <b>2. Age:</b>                                                               |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------|------------------------------------------|-------------------------------------|--|-------------------------------------------|--|---------------------------------------|--|---------------------------------------------|--|--------------------------------------|--|
| <b>3. Sex</b><br><input type="checkbox"/> MALE<br><input type="checkbox"/> FEMALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>4. Please tick your current level:</b><br><input type="checkbox"/> PRE-INTERMEDIATE<br><input type="checkbox"/> INTERMEDIATE<br><input type="checkbox"/> UPPER-INTERMEDIATE<br><input type="checkbox"/> PRE-FACULTY | <b>5. What's your last ECA score?</b><br><br><b>LAST ECA SCORE:</b><br>_____ |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <b>6. Are you 2014 entry or 2015 entry student?</b><br><input type="checkbox"/> 2014 entry<br><input type="checkbox"/> 2015 entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <b>7. Have you repeated any of the levels below? Please tick and state how many times you repeated the level?</b> <table border="1"><thead><tr><th>Which level(s) did you repeat?</th><th>How many times did you repeat the level?</th></tr></thead><tbody><tr><td><input type="checkbox"/> ELEMENTARY</td><td></td></tr><tr><td><input type="checkbox"/> PRE-INTERMEDIATE</td><td></td></tr><tr><td><input type="checkbox"/> INTERMEDIATE</td><td></td></tr><tr><td><input type="checkbox"/> UPPER-INTERMEDIATE</td><td></td></tr><tr><td><input type="checkbox"/> PRE-FACULTY</td><td></td></tr></tbody></table> |                                                                                                                                                                                                                        |                                                                              | Which level(s) did you repeat? | How many times did you repeat the level? | <input type="checkbox"/> ELEMENTARY |  | <input type="checkbox"/> PRE-INTERMEDIATE |  | <input type="checkbox"/> INTERMEDIATE |  | <input type="checkbox"/> UPPER-INTERMEDIATE |  | <input type="checkbox"/> PRE-FACULTY |  |
| Which level(s) did you repeat?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How many times did you repeat the level?                                                                                                                                                                               |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> ELEMENTARY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> PRE-INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> UPPER-INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |
| <input type="checkbox"/> PRE-FACULTY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                        |                                                                              |                                |                                          |                                     |  |                                           |  |                                       |  |                                             |  |                                      |  |

## Part A. Motivation

The following questions ask about your motivation for and attitudes in learning English in the Preparatory Programme. Remember there are no right or wrong answers to this questionnaire, just answer as accurately as possible. Use the scale below to answer the questions. If you think the statement is very true of you circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 & 7 that best describes you.

| Not at all true<br>of me                                                                                        |  | Very true<br>of me |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------|
|                                                                                                                 | 1      2      3      4      5      6      7                                        |                    |
| 1. In my classes, I prefer course material that really challenges me so I can learn new things.                 | 1   2   3   4   5   6   7                                                          |                    |
| 2. In my classes, I prefer course material that arouses my curiosity, even if it is difficult to learn.         | 1   2   3   4   5   6   7                                                          |                    |
| 3. I want to do well in my classes because it is important to show my ability to my family, friends, or others. | 1   2   3   4   5   6   7                                                          |                    |
| 4. I think I will be able to use what I learn in one level in other levels.                                     | 1   2   3   4   5   6   7                                                          |                    |
| 5. I am very interested in the content area of this course.                                                     | 1   2   3   4   5   6   7                                                          |                    |
| 6. I think the course material in my classes is useful for me to learn.                                         | 1   2   3   4   5   6   7                                                          |                    |
| 7. I believe I will receive an excellent grade in this class.                                                   | 1   2   3   4   5   6   7                                                          |                    |
| 8. I'm confident I can learn the basic concepts taught in this course.                                          | 1   2   3   4   5   6   7                                                          |                    |
| 9. I expect to do well in this class.                                                                           | 1   2   3   4   5   6   7                                                          |                    |
| 10. I'm certain I can master the skills being taught in this class.                                             | 1   2   3   4   5   6   7                                                          |                    |
| 11. Considering the difficulty of this course, the teacher and my skills, I think I will do well in this class. | 1   2   3   4   5   6   7                                                          |                    |
| 12. When I take a test I think about how poorly I am doing compared with other students.                        | 1   2   3   4   5   6   7                                                          |                    |
| 13. When I take a test I think about items on other parts of the test I can't answer.                           | 1   2   3   4   5   6   7                                                          |                    |
| 14. When I take tests I think of the consequences of failing.                                                   | 1   2   3   4   5   6   7                                                          |                    |
| 15. I have an uneasy, upset feeling when I take my exams.                                                       | 1   2   3   4   5   6   7                                                          |                    |
| 16. I feel my heart beating fast when I take my exam.                                                           | 1   2   3   4   5   6   7                                                          |                    |

## Part B. Learning Strategies

The following questions ask about your learning strategies and study skills for your classes. Remember there are no right or wrong answers to this questionnaire. Answer the questions about how you study in your classes as accurately as possible. Use the scale below to answer the questions. Use the scale below to answer the questions. If you think the statement is very true of you circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 & 7 that best describes you.

|                          |                                                                                                                                                   |                    |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Not at all true<br>of me | ←—————→                                                                                                                                           | Very true<br>of me |
|                          | 1      2      3      4      5      6      7                                                                                                       |                    |
| 1.                       | When I study for my classes, I practice saying the material to myself over and over.                                                              | 1 2 3 4 5 6 7      |
| 2.                       | When studying for my courses, I read my class notes and the course readings over and over again.                                                  | 1 2 3 4 5 6 7      |
| 3.                       | I memorize key words to remind me of important concepts in my classes.                                                                            | 1 2 3 4 5 6 7      |
| 4.                       | I make lists of important items for my courses and memorize the lists.                                                                            | 1 2 3 4 5 6 7      |
| 5.                       | I often find myself questioning things I hear or read in my courses to decide if I find them convincing.                                          | 1 2 3 4 5 6 7      |
| 6.                       | When a theory, interpretation, or conclusion is presented in my classes or in the readings, I try to decide if there is good supporting evidence. | 1 2 3 4 5 6 7      |
| 7.                       | I treat the course materials as a starting point and try to develop my own ideas about it.                                                        | 1 2 3 4 5 6 7      |
| 8.                       | I try to play around with ideas of my own related to what I am learning in my courses.                                                            | 1 2 3 4 5 6 7      |
| 9.                       | Whenever I read or hear an assertion or conclusion in my classes, I think about possible alternatives.                                            | 1 2 3 4 5 6 7      |
| 10.                      | During class time I often miss important points because I'm thinking of other things.                                                             | 1 2 3 4 5 6 7      |
| 11.                      | When reading for my courses, I make up questions to help focus my readings.                                                                       | 1 2 3 4 5 6 7      |
| 12.                      | When I become confused about something I'm reading for my classes, I go back and try to figure it out.                                            | 1 2 3 4 5 6 7      |
| 13.                      | If course readings are difficult to understand, I change the way I read the material.                                                             | 1 2 3 4 5 6 7      |
| 14.                      | Before I study new course materials thoroughly, I often skim them to see how they are organized                                                   | 1 2 3 4 5 6 7      |
| 15.                      | I ask myself questions to make sure I understand the material I have been studying in my classes                                                  | 1 2 3 4 5 6 7      |
| 16.                      | I try to change the way I study in order to fit the course requirements and the instructor's teaching styles.                                     | 1 2 3 4 5 6 7      |
| 17.                      | I often find that I have been reading for my classes but I don't know what it was all about.                                                      | 1 2 3 4 5 6 7      |
| 18.                      | I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for my courses.      | 1 2 3 4 5 6 7      |



- |     |                                                                                                             |   |   |   |   |   |   |   |
|-----|-------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 19. | When studying for my courses I try to determine which concepts I don't understand well.                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. | When I study for my classes, I set goals for myself in order to direct my activities in each study period.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. | If I get confused taking notes in my classes, I make sure I sort it out afterwards                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. | I often feel so lazy or bored when I study for my classes that I quit before I finish what I planned to do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. | I work hard to do well in my classes even if I don't like what we are doing.                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. | When course work is difficult, I either give up or only study the easy parts.                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. | Even when course materials are dull and uninteresting, I manage to keep working until I finish.             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



## APPENDIX F: Informed Consent Form

Dear Students,

I am currently conducting research into language achievement. The purpose of the study is to examine the relationship between your motivation and learning strategies in your language learning experience. I would like to collect data in light of these aims. This data will help identify why you might fail at certain levels and what can be done to help you achieve further success. There are no risks in the study. The potential benefits of this study include shaping instruction in accordance with your learning needs. On the questionnaires, you will find statements related to learning a new language. There is no correct or better response.

Participation in this study is voluntary. Even if you decide to participate, you are still free to withdraw from the study at any time. The questionnaires and interviews will only be used for academic purposes.

The responses to the questionnaires and any other information (including personal information) will be kept confidential. We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. We will not attach your name to the responses you give. An assigned number will be used instead. Only the researchers will know what your number is. Information from this study will be kept in locked files that can only be opened by the researchers involved in this study. It will not be shared with or given to anyone, or will not be shared with third parties.

1. I confirm that I have read and understand the Plain Language Statement for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reasons; I also accept I could be withdrawn from the study by the researcher if necessary.
3. In the event that I withdraw, or I am withdrawn, from the study, this will not have any effect on my academic evaluation or the service given to me positively or negatively.
4. The results obtained from this study can be reported and published scientifically, provided that my identity is kept confidential.

**I agree / do not agree** (choose as applicable) to take part in the above study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of Witness \_\_\_\_\_

Signature of Witness \_\_\_\_\_

Date \_\_\_\_\_

If you have any questions regarding this study, please contact me:

Researcher: Ayça Üner

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Contact Number: 290 18 01

Signature: \_\_\_\_\_

Contact Address: Bilkent University School of English Language  
East Campus, N Building AZ01 Bilkent/Ankara

## **APPENDIX G: Transcripts of the Interviews with Non-repeating Students**

**A: Interviewer**

**B: The student (interviewee)**

**Student 1- Electrical Engineering**

**Progress: INT-UPP**

**Current Level: PFC**

**Voice\_007**

A: Did you study English at high school?

B: We concentrated on Math a lot. We did not do much English in 11 and 12th Grade.

A: If you were to describe yourself with three adjectives, what would they be?

B: I am patient. I never give up. I know when to stop talking

A: How does stopping talking when it is time affect learning? Can you give me an example?

B: I do not react quickly. I try to keep my relations good. I do not want conflicts with others.

A: I never give up- how do these affect learning English?

B: If I want something, I will do it. I wanted to be in the first 1000 and I did it. I wanted to learn English. My listening skills were poor. I said I will improve it. I never gave up. I studied very hard. Now my listening skill is perfect.

A: Since you started prep program have your views changed about yourself.

B: I am different. This is a transition year for me.

A: Why are you learning English? Why is it important?

B: We are learning a new language. We are trying to understand how other people think. Learning English is learning about other cultures. I love learning about other perspectives?

A: What are your future plans?

B: I want to continue my education in the USA. I want to learn another language. I want to learn Spain. I think we should make connections with South America at a social and cultural level. I think this is important.

A: What does it mean to be successful?

B: If we can achieve our goals this is success. Success means being able to accomplish what we set as a goal for ourselves.

A: Why are you successful?

B: When I am relaxed and I know I can do it then I do it.

A: What affects your motivation?

B: The communication with the instructors. I would not like to be in class with a teacher whom I have conflicts.

A: Do you go to class everyday with the desire to learn something?

B: I do not know what we will do. Sometimes the lesson is boring but we still learn something.

A: What strategies do you use to learn?

B: Speed is important (Ivme ile alakali). We should not study at a stable pace. You should not wait and wait and then start studying. Instead you should adjust your speed.

A: What do you do to remember something you studied?

When I study, I always listen to the same music. I have this rhythm that I created. When I can't remember something, I will do the rhythm with my legs and remember it.

A: What do you do when you don't understand something?

B: I just leave it and then I know I will do it. If I do not understand something in class, I switch to sleep mode. I think I can do it later; I can work on this later. If I do not understand something, I will do the research myself first. I won't ask the teacher. I will just do it. I don't like seeking help.

A: How did you study for the ECA exam?

B: Until the last 2 weeks, I did not study at a fast pace. We should divide the week up. I should study grammar one weekend. Even within that weekend I will divide the topic up. For example on Saturday- I will study one grammar topic for 2 hours then I go and watch the match and then I come back and study for 2 more hours. Before the exam, I said to myself I can do this. I know I can do this. I know I will pass this no matter what.

## **Student 2: Law**

**Progress: INT-UPP**

**Current Level: PFC**

**Voice\_013**

A: Why law?

B: I was in math science class- I chose LAW- I love discussions.

A: Last ECA grade?

B: Around 80.

A: If you were to describe yourself with three adjectives, what would they be?

B: I can use brave- meaning of my name- in the debate clubs I stood up and presented to other- I achieved it. I was brave When you are in the debate club. At the beginning I did it not everyone can do it. If I do this, I know I will get a benefit- so it helped me.. I can choose hardworking- I will do my best I know I will get a benefit- probably this evening I will do what we did today. I tried to do this at INT and UPPER. I will go home today and study collocations. I can say funny, while studying I am trying to enjoy. I try to do jokes and enjoy. In class, I also try to do this.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: Because of my family, I am with my mother- my father works abroad. My family is not in Ankara. I live in the city center- I stay at the home my sister stayed when she was studying here.

A: Why are you learning English? Why is it important?

B: I am not learning for COPE- I am learning for entire life. I will need this language- not only in my formal education also when I go abroad.

Not for only for formal education but when we go abroad or meet with people from abroad, it will be very important.

The sources are interesting- to reach the sources in English I will need English.

A: What are your future plans?

B: I am trying to get a scholarship. Maybe I need to get high grades to get this from Faculty of Law- I will try to get a scholarship. Future goals: Law companies want students equipped with English.

A: How will English contribute to your future plans?

B: There are a lot of Law companies who want their employees to be equipped with English.

A: What does it mean to be successful?

Meaning of success: All people have unique way. Your way is success.

A: What do you attribute your success to?

B: Teacher has the most important role in my motivation. I enjoy coming to my teacher's lessons.

A: What affects your motivation?

B: I have responsibility for my family, country, I want to reach knowledge- all sorts of knowledge. I want to do sports. Reach knowledge and information is important for me. It is not hard we should keep up-to date.

A: What strategies do you use to remember the lesson?

B: Each course- I had one notebook- INT vocabulary notebook/ then I finished that I had UPP vocabulary notebook and then when I finished that I have a PFC vocabulary notebook- a brand new one- trying to write everything I heard. I am checking the dictionary and checking with my teacher.

A: What do you do when you don't understand something?

B: I get advice from my teacher. My writing is not good. So I ask my teacher what I can do. I only study vocabulary and collocations. It helps me with language, reading, writing, I am trying to write.

A: How did you study for the exam?

B: I only repeat vocabulary and collocations. It helps me understand reading and writing parts. It helps with exam reading, writing and we have this word formation part. I memorize word forms.

### **Student 3: Computer Technology and Information Systems**

**Progress: ELM PIN**

**Current Level: INT**

**Voice\_014**

A: So shall we start?

B: Can I use dictionary?

A: Did you repeat any level?

B: No. ELM PIN INT

A: What did you get?

B: CAT 1 90 and CAT 2 64 ECA- 72

A: If you were to describe yourself with three adjectives, what would they be?

B: Curious- I want to learn a lot of words; Impatient- if I am not a PFC student or Upp but I want to learn these words by studying them; Lazy sometimes- I always want to study but I don't sit to study. It has been very boring over the last 6 months.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: At high school, I was with my father and mother. I couldn't do anything if my parents don't let me. Now I am free. There are foreign teachers here. Now we only learn English. There aren't other lessons this is good for me. I communicate with foreign students in the dormitory.

A: Why are you learning English? Why is it important?

B: Why am I learning English? World is big. I am studying at Bilkent university I may have to go abroad. I'll probably go. I will learn English. My department is

CTIS- I want to go to Silicon Valley. I want to recognize other cultures, customs and traditions. This is good to learn English.

A: What does it mean to be successful?

B: Successful: This is different for each one. Everyone can be successful in any way. Life doesn't need success everytime. Sometimes we can be successful in specific topics. If you have got some sport activity or if you are a musician, study in order to have success.

A: What does it mean to be successful in English class?

B: In order to improve our English, we need to speak it.

A: What do you attribute your success to?

I haven't been blaming teachers since my childhood. My teacher is like a memur (officer). When the bell rings, she goes. Failure is about the person- it is directly about the people. Teachers sometimes affect them.

A: What strategies do you use to remember the lesson?

Words are very important. There are 16-17 grammar items; they are not as important as words. I have got a foreign teacher, so it is good for us. I think that if I have a foreign teacher I can improve my speaking.

A: What do you do when you don't understand something?

If a teacher is close to me, I ask her. If the teacher is not there I watch a video in the dormitory- a youtube video is useful. I listen to foreign teachers on youtube. I look at Turkish grammar books.

A: How did you study for the ECA exam?

Before the ECA, I continue to study words., but in addition, I 'm studying some grammar- the ones which I do not know or remember- I study these. Quizlet is a good tool to learn words. Words are important for us.

#### **Student 4-Physics**

**Progress: BEG-ELM-INT**

**Current Level: UPP**

**Voice\_024**

A: Did you repeat?

B: I never failed.

A: Last ECA grade

B: : I got 63.

A: What can you tell me about your level of English?

I am good at writing and reading. I am not good at speaking, pronunciation, cultural information because I don't study very hard for English. I try to learn how to study English a lot. Why do I learn English is what I question. How to study English is not important. I prefer to ask myself why do I learn English?

A: Why do you learn English?

B: To improve myself

A: How will English help you in your department?

B: Write essay and when I go abroad. Research is in English.

A: If you were to describe yourself with three adjectives, what would they be?

B: Generally I question why I need English not how do I study. When I write an essay, I am not concerned about thesis statements. It is more important for me to communicate my ideas- cliches are not important. I am a good observer because of my Department

A: What do you mean because of my department?

B: Generally I observe people around me. It contributes to understanding people and people's opinion.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: When I was at high school, I did not know English. I could not even say hello. My English teachers say you will fail next exam.

A: Did you like English?

B: Sometimes yes sometimes no. When I listen to music I like it. For 10 years, I have been engaged in music.

A: Do you think in detail?

B: The best thing about learning English is learning everything. I first try to observe English. First I need to understand the rules. In Upper Level I feel that I am not so successful. At intermediate level I listened to the teacher tried to understand and then study but at this level there are many things I do not have time to observe.

A: Why are you learning English? Why is it important?

If I want to be a professor. It is an international language. If I go abroad, I must learn English.

A: What does it mean to be successful?

B: Being happy.

A: What do you attribute your success to?

B: I blame myself. It is not important not to study a lot. If you study without understanding then this is not learning.

A: What affects your motivation?

B: I watch the video "never back down." It is very motivational. My girlfriend and family are sources of my motivation.

A: What motivates you in the classroom?

B: Fresh air influence me. Topic doesn't matter. Just having the fresh air open window important. You can't choose the topic on the exam but fresh air is important.

A: Does the test create anxiety?

B: Never. You don't know what will come on the exam why worry before hand?

A: why do you think some student fail?

B: They waste their times by studying without understanding. The quantity is not important. The quality is what is important. Learn 5 words in a day and learn it fully. It takes 15 seconds to write the word and corresponding meaning but it would take an hour to understand the words fully.

A: What strategies do you use to remember the lesson?

I listen to the teacher and then there is no need to study more. But it depends I might choose to study..

A: What do you do when you don't understand something?

I ask immediately,

A: How did you study for the ECA exam?

B: There is nothing like studying for the exam. We should put it in a routine. We should rest in the last couple of days.

**Student 5- Communication and Design**

**Progress: BEG-ELM-PIN-INT**

**Current Level: UPP**

**Voice\_023**

A: What was your exam grade?

B: 75

A: How would you judge your English level?

B: I am Upper but I feel Intermediate- towards the end of it.

A: If you were to describe yourself with three adjectives, what would they be?

B: I am ambitious and curious.

A: How do these affect learning English? Can you give me an example of yourself?

B: I have to finish the preparatory program in one year.

A: What does it mean to be successful?

B: If a person is happy and can make the others around happy they are successful.

A: How do you study?

B: I listen to the teacher in class. I can't say I have a study routine. I especially study vocabulary or listening. I try to use Moodle. For vocabulary I read the reading and study the vocabulary.

A: Why are you learning English? Why is it important?

B: Global language is English. You need to know English for business life.

A: What do you attribute your success to?

A: What affects your motivation?

A: What do you do when you don't understand something?

B: I first ask the teacher. If I do not understand, I go home and watch a youtube video from the web to better understand it.

A: I am curious to learn how you start a new course?

B: I buy new pens and notebook. If I were able to pass the previous course, that means that I can pass this one. Maybe it will mean 10 more minutes for this course.

A: What strategies do you use to remember the lesson?

B: I take notes on the coursebook and I copy them to my note-book home.

A: Which topics do you like?

B: I like making Connections book- They are scientific they are challenging.

A: What are your future plans?

B: I am currently thinking about ads. I think what kind of ads I can prepare.

A: Do you have exam anxiety?

B: There is tension before the exam and after the exam. I do not like being around during the exam because people compare their answers. I do not like those sort of environments.

A: Do you think you will get the best grade?

B: I have no such desire. I want to get a grade that will satisfy me and motivate me. I can pass with 61 but I won't be happy.

A: What motivates you?

B: Teachers motivate me. I don't like doing homework. I do it for the teacher. I also learn but I do it for the teacher.

A: What would you attribute the failure?

B: Myself. If I don't study I don't study. I choose to watch movies. It is me not another person.



## **APPENDIX H: Transcripts of the Interviews with Past-repeating Students**

**A: Interviewer**

**B: The student (interviewee)**

**Student 6- Interior Architecture and Design**

**Progress: ELM-PIN- 3 times INT- 2 times UPP**

**Current Level: PFC**

**Voice\_015**

A: What is your department?

B: PFC.

A: Your department?

B: Sorry I am so used to this place. Interior Architecture

A: Did you fail any levels?

B: Yes, it is my second year. I passed Elementary, I passed PIN but when I started Intermediate I failed three times.

A: Then Upper –no fail

B: Just one...

A: Do you remember your ECA result?

B: 67 I am not sad about this but not happy too?

A: If you were to describe yourself with three adjectives, what would they be?

B: Patient, aggressive, so hyperactive.

A: Can you give me an example of yourself when you were patient?

B: I failed Intermediate three times and I said to myself Esra you have to be patient. My parents say why are you still here? They expect me to pass in one year. It is a tough for me to communicate it. Last Intermediate I said to myself this is the last time you will be studying at Intermediate level.

A: How about aggressive? How does that affect your learning?

B: I want to give example from teachers. Some teachers do not provide good exercise. When I started Intermediate, the teacher... I know this is not a good adjective... but she was bad. I didn't do anything about this because I know the teacher reads my writing and grades it. I thought that it would have drawback. Teachers are so important to pass a course because if they give you beneficial information, you want to go to the class. You can understand and you want to attempt to do the exercise.

A: What about hyperactive?

B: Hyperactive- Lesson hours are too long; I always want to speak in the lesson. If nobody speaks I feel bored. If no one speaks, I feel very bored and I do not want to speak.

A: Do these characteristics help you in learning English?

B: I think if I don't learn, my parents will shout at me and I will upset my mother and my friends. I always think about what my friends will say.

A: Why do you think like this?

B: Because it is my second year some friends are in their first and they might think why you couldn't do it.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: Especially, I work harder than when I was high school. I pay attention to learning English and I want to learn English. I always study regularly. What I expect does not always happen. I am much more successful than high school.

A: Really. Why is that?

B: At high school I was so happy- I connected with friends. It was a teenager period. Right now I am conscious. I want to pass. I am excited about my department. This is a push factor for me. But here, sometimes I do not know how to study.

A: What factors influence your motivation?

B: I feel OK when I think about my department or the Interior architecture clubs I can attend in the department.

A: How do you learn?

B: The most important thing for me is to learn vocabulary. Studying vocabulary is important for me. Everyday I try to do listening. I try to write three writings a week.

A: What do you do when you don't understand something?

B: If I don't understand something, I always speak and ask my questions.

A: How did you study for the ECA exam?

B: This should be long term. I should not leave it to last day. Especially in the last ECA, I studied hard and I said to myself: I can do this.

A: You think you understood when you when home you realize you did not understand?

B: If I think this grammatical structure is good for me, I try to learn it. When I recognize it in a reading I should underline it. I try to use it in my writing. I underline it in my writing so that I can get feedback from my teachers.

### **Student 7 - Psychology**

**Progress: INT-UPPER-UPP**

**Current Level: PFC**

**Voice\_018**

A: What is your department?

B: Psychology

A: How did you progress?

B: I am in PFC. It is my first year. I started INT, but at UPPER I failed and now PFC

A: Do you remember your last ECA score?

B: 67

A: If you were to describe yourself with three adjectives, what would they be?

B: Fun, Sincere and happy.

A: Can you give me an example of yourself when you were having fun?

B: We have a what's app group with my old friends. It was fun to share information like the dresses we were wearing when we were children. We observed the growing up of self looking back.

A: How about sincere?

B: Sincere- Like poliyana because if I don't like poliyana, life will be harder- there will be sad events, cruel people- I say to myself, you will not live forever, live the moment.

A: How do these help in English?

B: I love English so much- At high school, we did not have much English lessons and I wanted to learn. I watch series, the songs help me. I think it is so important.

A: Helin at high school and Helin now. Think about high and prep program have your views changed about yourself since you started the prep program?

B: When I was at high school, I always wanted to adapt to different environments. I always observed people. I focused on people's behaviour. Why are they behaving like this?. I tried to understand people's behaviour What has this person lived? Which situation is challenging for this person? You don't know how their parents treat them? Because these are very important...It is important to understand why is this person like thi. I tried to understand why are people behaving like this? Now, at university, I do not care about such things so much. I am more formal.

A: Why is English important?

B: English is important. Wherever you go, people speak English. People will understand you better. While I'm studying I'm so excited I want to learn new things. I am calm I say to myself continue to work and you will do good. I try to ignore the door bell and other distractions at home. I don't have a specific purpose. I don't expect from myself to be very academic. I study to learn something new.

A: After you finish prep school, what are you plans for the future?

B: Yes I am so excited. I don't have a specific purpose. I don't expect from myself to be very academic. I don't want a big CV. I study to learn something new. How I develop myself is important. After I graduate from Bilkent Psychology, I won't think about money. I want to develop and improve myself in the most efficient way possible

A: What does it mean to be successful?

B: Success= happiness, coffee

A: What does it mean to be successful in English class? What do you attribute your succes to?

B: I failed Upper because it was my first year. I started a social life. I am not used to this. I am usually with my books and in front of my computer. I also experienced a challenging family event. I tried to help my family. I did not study much.

A: What affects your motivation?

I think my family motivates me the most. I also think that teachers are of significant importance but when I go home I look at my notes what we did what we will do. I also have lots of friends around the world- everyplace in the world. We talk through webcams.

A: What strategies do you employ remember the lesson?

Actually, I went a private course but left it. I do not know any fast reading strategies or anything like that. I always ensure myself that I study enough and I try to calm down during the exam. I keep a notebook and I write important vocabulary here. I am happy while I am studying

A: When you go home how do you study?

B: When my teacher says, this is important so I put a star. I keep a notebook. I always keep my teacher's feedback in a folder. I look at my notes. I look at them and I say to myself, this is a new collocation. I should use this in my writing. This is better than the older.

A: How did you study for the ECA exam?

I always listen to my teacher. I never sleep. Someone she tries to teach you something. I should listen to them.

A: What advice would you give to anyone coming to the university?

B: My advice to ss: Someone is trying to teach you something. Listen, revise don't worry just work- do revision regularly. They should find a way to study a way in

which they will have fun. I always study with music but my parents are angry with me. But I have fun this way and I learn this way.

### **Student 8- Interior Architecture and Design**

**Progress: 2 times PIN-2**

**times INT-2 times UPP**

**Current Level: PFC**

**Voice\_019**

A: Can you tell me about your progress through levels?

B: PIN, PIN, and INT and INT then UPPER; my first CAT result is low so I quit UPPER, I studied in summer school. I failed again UPPER again. Now I am finally PFC

A: Three adjectives to describe your self what would they be?... Hardworking...

B: No.. (laugh) Lazy I don't want to do sth. I choose easy way to do something. I like Bilkent university and I like being a student here.

A: Does this hinder your progress?

B: I think before the university life, I did not know English at all. With the help of Bilkent University, especially this year, I love English and I want to learn English. But sometimes I think Bilkent is hard way to learn English but I am happy.

A: You at high school you now, how is it different?

B: At high school, I did not give importance to English. It was a lesson for me to relax.

A: Why is it important to learn English?

B: In my job it will help me. I have to learn it.

A: What are your goals after prep school?

B: I think in BUSEL, I think English is hard but I know teachers or HTU want to help their students and teach them good English. They want us to be successful in our departments.

A: Future life goals?

B: My father wants me to continue his job. He sells furniture and does construction.

A: What does it mean to be successful?

B: If I am successful is something and if my father will be happy, that means I will be successful?

A: When you repeated these levels, who is responsible?

B: Me, I did not study. There are great number of differences. Every student will be more relaxed in high school. Some students are like me they do not want to study.

A: What motivates you to study?

B: Last course my main teacher and I talked about my situation. He said something and he encouraged me for that thing. Then, I saw if I study hard then I will be successful. I saw this. Someone should encourage me to do something, I will be successful. Without suggestions and examples, I can't understand.

A: What strategies do you use to study?

B: Vocabulary is a problem so I use quizzlet app. Every day I learn a lot of vocabulary. I do reading. I am more successful in the language section of the exam.

A: How do you remember what I learn in the lesson? Do you revise?

B: No but sometimes I revise?

A: How do you study for ECA or CAT exam?

B: if I want to pass the ECA, I can't pass if I only study for 1 or 2 days before. I need to study way in advance. I saw that I can't pass if I study for 1 or 2 days.

A: What advice would you give to new students?

B: Nobody can pass in one year. First year they should spend time with friends but at the same time they study a bit. Second year, they have to work hard. But I don't know maybe I can't go to my department. This is my second year.

### **Student 9 Business Administration**

**Progress: ELM-PIN-3 times INT- 3 times UPP**

**Current Level: PFC**

#### **Voice\_017**

A: What is your department?

B: Management

A: What is your progression like?

B: ELM, PIN, 3 times INT, 3 Times UPP and finally now PFC

A: Congratulations. Which three adjectives would you use to describe yourself?

B: Struggler, Despair, Motivation.

A: How do these help with English?

B: Struggler-I believe that if a person wants to achieve, this person should struggle sufficiently and make an effort.

Hopeful- I want to become a good businessman. My dream is to become a famous person.

Motivation- I am motivated to learn- my dreams my goals.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: There are a lot of differences. At high school- I didn't care much- didn't study. At university- I learnt how to learn English better.

A: Why are you learning English? Why is it important?

English is the most popular language. If I learn English, I will have a lot of English.

I want to develop myself at a social and academic level.

I may learn a second language maybe Spanish- 2nd useful language and it is easier to learn.

A: How will English contribute to your job?

B: I want to be a good businessman. I want to go abroad- America or maybe England.

B: What does it mean to be successful?

Successful= realize my dreams and hopes.

A: If you can't learn, what do you attribute your success to?

If I can't learn, I think it is me. I don't believe it is teachers, school or other people.

We can't blame others- no pain/ no gain.

A: What affects your motivation?

I want to live a good life. I want to be a good father- model for my kids.

A: teachers or other things

B: My parents, Parents influence motivation.

A: What strategies do you use to remember the lesson?

I like writing so I'm writing. My listening is bad sometimes. I study listening. I don't revise very much. I usually study listening because my reading and writing and grammar are better. I study vocabulary.

A: When you go home do you study grammar?

B: Yes  
 A: Where do you look?  
 B: Books  
 A: How did you study for the ECA exam?  
 I study listening. I believe I am strong in reading, writing and grammar as I said.  
 A: What would be your advice?  
 B: Don't blame others?  
 A: What kind of blame would you say this is?  
 B: Don't blame teachers. Don't say I have family pressure. Just study. My life philosophy is no pain no gain.

### **Student 10- Law**

**Progress: BEG-ELM-INT-INT**

**Current Level: UPP**

**Voice\_022**

A: What is your department?  
 B: Law  
 A: How did you progress through the levels.  
 B: BEG, ELM, INT, INT and now UPP  
 A: How would you judge your English level?  
 B: I think I can go to another country and communicate with people there but I can't talk about academic topics. The part which I will experience a lot of problems is speaking and I think I am to be blamed but my teachers at BEG, ELM and PIN did not give us an opportunity to speak. I think I might fail again in this course. At BEG, ELM and PIN I thought everything was easy. If I fail again in this course it is because I did not study. When I decided to come here, everyone said "Oh don't bother, prep. school is very difficult there." This comment was not important for me. *Did I speak too much?*  
 A: No, thank you indeed. I have a couple of questions I would like to ask. For instance, if you were to describe yourself with three adjectives, what would they be?  
 B: I am a little aggressive. I can't control myself. I am relaxed here though. This is good for me for the exam. This is the first time I saw this in this class. The students in this class are so anxious about the exam. I have a friend who keeps telling me that I should listen to my teachers and she just studied 90 words. This advice is good.  
 A: How do these affect learning English? Aggression for example.  
 B: Aggression leads to ambition in me. I have friends who just passed the exam and are now in their department. I tell myself I should have worked harder in INT and not failed. I fear this level as well. I might fail now because I feel I did not keep it tight from the beginning.  
 A: What affects your motivation?  
 B: I want to study law in this school. I think learning English is important for this job. Since I was 5 years old, I wanted to be a lawyer. I didn't use to like English until my arrival here. Education is here. You can have difficulties yes but you should study. I am still having difficulties in listening exams. This is my weakness. Listening is difficult at this level.  
 A: Are you a curious person?  
 B: I am very curious. If I hear something, I would dig into it more.  
 A: What does it mean to be successful?  
 Success means being able to reach your aims.

A: Let's say you can't achieve success in the school. What do you attribute your success to?

B: I think I am the one to be blamed.

A: How about your success?

B: It is because I am relaxed. I do not fear exams at all. That's why I am successful. There is a lot of family pressure on me but I don't care that much.

A: Do you believe in yourself?

B: I used to believe in myself but I see that I don't study this course. I know I can do it if I study. Please do not misunderstand me but some fail 4-5 times. I don't think I will be in that position.

A: What do you observe about these students?

B: In this school, there is a lot of stress of exams. In every CAT students take, they think will I be dismissed after this. They want to study in this school. Before the exam, there is usually a bad atmosphere in the classroom. They are very stressed. There are usually two or three people like me who are stressed.

A: What do you do when you don't understand something?

B: If I don't understand something during the lesson, I ask my teacher. If I study at home and do not understand something, I watch videos. I watched relative clause I learnt a lot. In my writing, I used to memorize vocabulary and try to use it. Now, I write a sentence underline it and show it to my teacher and get feedback. This is actually what I started to do after I got a low grade from the CAT exam at intermediate level.

## **APPENDIX I: Transcripts of the Interviews with Current-repeating Students**

**A: Interviewer**

**B: The student (interviewee)**

### **Student 11- Interior Architecture and Design**

**Progress: PIN→ 6 times INT**

**Current Level: Repeating INT**

**Voice\_006**

A: If you were to describe yourself with three adjectives, what would they be?

B: Emotional, Hardworking, gives attention to details

A: How do these affect learning English? Can you give me an example of yourself?

When I wake up in the morning I see my mother

I see my mother My mother looks like she is upset, but it is not really like that. I constantly ask her, mom what happened. She seems upset but she is not; I really think about these things a lot.

A: Why do you think about your mom's behaviour so much? How does this affect your English learning process?

B: I think about the details a lot. In my private life and in reading I think I think too much about the details.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: Because I failed Intermediate level I feel bad about myself

A: Why do you feel bad?

B: Does not make me ambitious I want to sleep I don't want to talk to anyone

A: Why are you learning ENGLISH? Why is it important?

B: I need to improve my English. I need it for my department too. I used to like it, but I think it is less.

A: What are your future plans?

B: I want to go to Italy and use my English there. I will do my MA

A: What does it mean to be successful?

B: I want to talk about my personality. To be a good person.

A: What does it mean to be successful in English class?

B: To be successful at Intermediate level.

A: What do you attribute your success

B: To myself- I can do everything in the lesson but not on the exam. In reading I pay attention to details. For listening, I can infer for myself.

A: What affects your motivation

B: Things I experience in my private life and failing the course. I had a boyfriend I broke up and I became more stressed. My mom is upset about this?

A: What strategies do you use to remember the lesson?

B: I memorize the words but I forget later on.

A: What do you do when you don't understand something?

B: First I try to do it myself. Then I ask my teacher- especially grammar

A: You think you understood when you when home you realize you did not understand?

B: I try to understand. I look at the examples we did in class. I try to understand. My teacher puts some cloze test, reading and listening. I think I did only one of the



reading and listening. I did word formation and looked at the vocabulary. I looked at the word list a lot I studied vocabulary especially word formation.

B: I look at the INT wordlist. I did the practice on Moodle

A: You had stated that you were ill, and...

B: I could not sleep the night before.

A: How did you study for the ECA exam?

B: I study the words, I think it is effective but I see that it is not.

A: What will you do to pass this course?

B: I will not sleep.

### **Student 12- Music Composition and Orchestra**

**Progress→ 2 times PIN, INT, UPP and 3 Times PFC**

**Current Level: Repeating PFC**

**Voice\_008**

A: Have you repeated any levels

B: PIN, PIN extension and then I passed until PFC. Two times

A: Was it difficult?

B: I passed the exams by getting approximately 75 but I wasn't able to cope with COPE (the proficiency exam)

A: How would you judge your English

B: To me it is good I think. I had the opportunity to study with foreign composers. Especially my speaking skills were developed.

A: If you were to describe yourself with three adjectives, what would they be?

B: Ambitions, greedy, cheerful

A: Why do you greedy?

B: It is associated with ambitious. I want more than I want now... It is associated with my lectures and music. I want to go to the department.

A: How do these affect learning English? Can you give me an example of yourself?

B: These do not help me in prep. school. I am always studying.

A: Think about high and prep program have your views changed about yourself since you started the prep program? Emre in two schools

B: This is my second university. I studied in Hacettepe for 3 years in conservatory.... Music is kind of universal language

A: What are your goals for the future? After you finish Prep. School

B: Because of exams, I had canceled my premier. If I pass, I will be able to go to workshops, masterclass.

A: After Bilkent?

B: I have to go abroad. I haven't decided which area to specialize. I want to be a composer. I may go to Germany.

A: What does it mean to be successful?

B: Success associated with how many things I can. I want to be a composer –in order to achieve this aim I should write qualified music.

A: What does it mean to be successful in English class?

B: Depends on how many books and tv series you have watched. I am a visual learner and I like listening.

A: If you fail, what do you say. What do you attribute your success to?

B: I said it was my fault. I didn't study deeply. PIN is kind of easy.

A: Why didn't you study deeply?

B: I was writing a piece.

A: What affects your motivation?  
 B: Class- friends have a vital role. Going to Germany motivates me.  
 A: What strategies do you use to remember the lesson?  
 B: Until this time, I was writing the wordlist to my paper to memorize them. I read lots of books. You know by speaking to my department teachers.  
 A: How do you remember what you studies. Is there a strategy you use.  
 B: My memory is my strong thing so I don't have a strategy. When I go home I focus on other things which I did not do in class. IT is on Moodle.  
 A: What do you do when you don't understand something?  
 B: Ask teacher--- It is so easy.  
 A: You don't understand again.  
 B: I can do some research on the internet never ask friends.  
 A: How did you study for the exam?  
 B:I did extra reading and listening I wrote extra things  
 A: When you read how do you read?  
 B: I read deeply...I have a tendency to go into details. Deeply- look at the questions and read deeply.  
 A: What can we do to help you?  
 B: Give me more COPE exams.  
 A: What can you do to pass the exam?  
 B: If I have a chance I can take more COPE exam.I have time management problems. I could not complete reading completely. I could not manage my time.

### **Student 13- Law**

**Progress: PIN→ 2 times INT**

**Current Level: Repeating INT**

**Voice\_009**

A: What's your deparment?  
 B: Law...  
 A: What about your progress through the levels? How did you progress?  
 B: PIN and INT and INT now.  
 A: How would you judge your English level?  
 B: I have been able to improve my English. I am very stressed in the exam so I could not do the exam. Last year, I went to Sakarya University. One year is lost already.  
 A: What was your ECA score?  
 B: 52  
 A: If you were to describe yourself with three adjectives, what would they be?  
 B: hardworking, loves to spend time with the family, stressed, joyful but only in Sakarya.  
 A: How do these affect learning English? Can you give me an example of yourself?  
 B: Hardworking and stress influence my language achievement. Stress is very influential in my learning. I am studying 3 hours in a day but I am studying with love. I love studying I can study more no problem but exam stress affects me.  
 A:Think about high and prep program have your views changed about yourself since you started the prep program?  
 B: Seray was happier in Sakarya. I was active and joyful.  
 A: Why are you learning English? Why is it important?  
 English is a common language. In Law, English is needed. I want to work in an International Company. When I take a case, you want to consult foreign people.

A: How will English help you in your department.  
 B: In university, it is unnecessary in Law- only 30% of the lessons are in English. I am learning English for my future not for my department.  
 A: What does it mean to be successful?  
 B: Intelligence and hardwork.  
 A: What do you attribute your success to?  
 B: Not only exams but in my daily life I am stressed. When I go to dormitor, 6 I eat and I study between 7 and 10. It is boring; it is a routine. I blame my characteristics for failing. I want to be a relaxed person.  
 A: What affects your motivation?  
 B: My teachers motivate me. I love my teacher I understood that this is very important. I think I wasn't well informed of how to study in my last course. This course my teachers tell me to repeat grammar everyday; they make me aware of how to study; they make me use the grammar by forcing me to do so. They show me ways of learning which I seem to lack.  
 A: How do you study for the exam?  
 B: I bought a book for exam. I do some exercises as if I am in the exam.  
 A: Do you read with a highlighter?  
 B: Studying Law, I did this... I now mark it on the book.  
 A: What do you do when you don't understand something?  
 B: I read again. If I don't understand something I will will read again. Then, I will ask my teacher.  
 A: How did you study for the ECA exam?  
 B: I don't think I was properly guided by my teacher. I would like my teachers to guide me. I don't think my teachers forced me to use certain structures. I think teachers should guide us.  
 Between 7-10 p.m. I am writing, I do some reading. I try to listen. I bought a book for the exam. I do some of the exercises as if I am in the exam.  
 I have a routine. My routine between 7p.m.-10 p.m.  
 - I am writing  
 - I do some reading  
 - Every evening, I try to listen  
 I was so unaware. I would have like to learn about some strategies.  
 I am breaking up the grammar points into days.

#### **Student 14- Political Science**

**Progress: PIN, INT, 3 Times UPP**

**Current Level: Repeating UPP**

**Voice\_010**

A: How would you judge your English level?  
 B: I feel like I improved.  
 A: If you were to describe yourself with three adjectives, what would they be?  
 B: patient, calm, responsible  
 A: How do these affect learning English? Can you give me an example of yourself?  
 B: First of all, I am very planned. I make a plan in my head and I make sure I finish it before I sleep. Some poeple give up but I don't  
 A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: I used to study at high school but I did not know the language was this important. When I entered this university I was telling myself I am sure I can do it but there is a complicated system here. At high school, the teacher would tell us to use red pen, this notebook that notebook. There wasn't proper language learning.

A: Why are you learning English? Why is it important?

B: My department is based on reading,. I should understand what I read. One language is 1 person. In my department I will need to read and understand. I will need to speak in the international arena.

A: What are your future plans?

B: I would like to go to my department. There has been a change in myself until this time- I started PIN and now I am in UPPER- there has been a tremendous change in me.

A: Where was the difficulty in the courses?

B: Listening was difficult was a problem in all my course.

A: What does it mean to be successful?

B: To be able to learn what you want to learn in the most successful way. To be able to understand fully. We should not memorize. We should think about the issue not memorize.

A: Who do you attribute your failure? I know I also make mistakes- of course I do. But I think there are mistakes with the system.

A: What do you attribute your success to?

B: On my part, I get very nervous on the exams. The system is very demanding. I did not know it was like this. I am really nervous even if I know something I may not be able to do it.

A: What affects your motivation?

The way the teacher explains the lessons- additionally the influence of my parents. Not my mother. My mother is always with me. There is a problem with my father. He does not know about the challenges here. My uncle tries to explain to him how it is difficult to pass. I study he sees it but he gets upset because I can't do it.

A: How do you study?

B: I study outloud. I write everything I think this is very important.

A: What strategies do you use to remember the lesson?

I try to remember by making links- associate one thing to another thing. I try to remember something similar to what I know.

A: What do you do when you don't understand something?

B: I always ask my teacher if I do not understand one thing. I make sure that I ask if I do not understand. I ask during the break. If I can't remember something and I do not have someone to ask to I look it up on different websites. It seems like I understand but then I have difficulty. I get into stress. I am really sad about this really.

A: How did you study for the ECA exam?

B: I have been studying since the course started. I study by writing I listen from the listening sites and I look up the words that I do not know.

### **Student 15- Communication and Design**

**Progress: BEG-ELM- 2 times PIN- 3 times INT**

**Current Level: Repeating INT**

**Voice\_011**

A: Which levels did you repeat?

B: BEG-ELMx1- PINx2-INT-INT- INT ext.

A: What was your last exam score?

B: 52

A: If you were to describe yourself with three adjectives, what would they be? A: How do these affect learning English? Can you give me an example of yourself?

B: I can be the best friend. Loyal- my mother and father are very important for me....I never forget anything- bad or good- I will not forget anything- good or bad. I will do everything for my friend. Loyal to my mother and father- whatever choice they gave me. I never forget anything. I always think about what people did to me. To be a good friends, my friends who are in the upper course tell me "Ece come let me teach you this."

B: I feel I owe them. When I think about my parents, I lose my time. I think about my parents a lot. I say to myself I must study hard. My father doesn't say anything explicit but I know I must work hard to pay them back. By being successful, I feel I can pay things back.

A: Think about high and prep program have your views changed about yourself since you started the prep program?

B: In the past sports and music were more important. I think more in depth since my arrival at university. I think about the negative effects of going to cinema. Now, I do not think about them that much. I am aware of the times when I do not study, I go to the cinema. I know I will come back after 10:00 but that I will not work. I know that when I do not study I feel guilty but I do not give up what I plan to do.

A: Why are you learning English? Why is it important?

B: For my department, I do not want to graduate from any university. I must be different- I must graduate from good prestigious university. I must graduate to maintain my life standards. I must graduate and have a job for my kids. Here I read. English will allow me to see multicultural perspectives. I imagine things from my mind.

A: What does it mean to be successful?

B: Success: means starting something and when you come to the end being able to say I am at a better point then I started. I cannot attribute my success or failure to any concept. I know I should study to pass.

A: What does it mean to be successful in English class?

B: Teacher has a role- if I like my teacher I take great pleasure in learning,

A: What do you attribute your success to?

B: I attribute my failure to myself. I know myself. If I see my teacher 3-4 hours here, I am unsuccessful because I do not do what it expected of me.

A: What affects your motivation?

B: My teacher affects my motivation. If I like my teacher, I am motivated.

A: What strategies do you use to remember the lesson?

B: I note things down. I have a sifreli systems. I create stories. In the past I used to create stories to remember things for the YGS exam- I will do this for English as well.

A: How did you study for the ECA exam?

B: Before the ECA exam I could not sleep- I went to sleep at 4 and woke up at 7:30. I fell asleep as I was looking at the words. Some of these words is still on my mind- "pleasure" I need to write a lot. I did Open Forum, BBC learning ENGLISH- there are stories there and I listen to them. I watch youtube videos I take notes of words. I need to write a lot of essays. I do some listenings from the websites.

## APPENDIX J: Listwise Deletion for Effort Regulation

Table 7a

Listwise deletion and imputed scores: Hierarchical regression for variables predicting effort regulation

| Effort regulation              |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
|--------------------------------|----------------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|
| Predictors                     | Original (listwise delete) |               |         | Imputed (version 1) |               |         | Imputed (version 2) |               |         | Imputed (version 3) |               |         | Imputed (version 4) |               |         |
|                                | <i>B</i>                   | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       |
| <i>Step 1</i>                  |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                      | 0.09                       | (0.07)        | .03     | 0.06                | (0.08)        | .02     | 0.06                | (0.08)        | .23     | 0.07                | (0.08)        | .26     | 0.06                | (0.08)        | .24     |
| 2. Utility value               | 0.21                       | (0.09)        | .19**   | 0.20                | (0.04)        | .18**   | 0.20                | (0.04)        | .18**   | 0.19                | (0.03)        | .18**   | 0.20                | (0.03)        | .19**   |
| 3. Self-Efficacy               | 0.29                       | (0.04)        | .24**   | 0.29                | (0.04)        | .24**   | 0.30                | (0.04)        | .24**   | 0.30                | (0.04)        | .25**   | 0.29                | (0.04)        | .24**   |
| <i>F</i> change                | F(5, 981) =                |               | 29.04** | F(5, 1003) =        |               | 27.89** | F(5, 1003) =        |               | 28.35** | F(5, 1003) =        |               | 28.77** | F(5, 1003) =        |               | 29.60** |
| Adjusted <i>R</i> <sup>2</sup> | .12                        |               |         | .12                 |               |         | .12                 |               |         | .12                 |               |         | .12                 |               |         |
| <i>Step 2</i>                  |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                      | 0.08                       | (0.08)        | .03     | 0.06                | (0.08)        | .02     | 0.05                | (0.08)        | .02     | 0.06                | (0.08)        | .02     | 0.06                | (0.08)        | .02     |
| 2. Utility value               | 0.08                       | (0.04)        | .07     | 0.07                | (0.04)        | .07     | 0.06                | (0.04)        | .06     | 0.06                | (0.04)        | .05     | 0.07                | (0.04)        | .06     |
| 3. Self-Efficacy               | 0.18                       | (0.04)        | .15**   | 0.18                | (0.04)        | .15**   | 0.19                | (0.04)        | .15**   | 0.19                | (0.04)        | .16**   | 0.18                | (0.04)        | .15**   |
| 4. Intrinsic reasons           | 0.30                       | (0.04)        | .26**   | 0.29                | (0.04)        | .25**   | 0.31                | (0.04)        | .27**   | 0.30                | (0.04)        | .26**   | 0.30                | (0.04)        | .27**   |
| 5. Self-worth concerns         | 0.05                       | (0.02)        | .08*    | 0.06                | (0.02)        | .09**   | 0.05                | (0.02)        | .08**   | 0.06                | (0.02)        | .08**   | 0.05                | (0.02)        | .08**   |
| <i>F</i> change                | F(2, 979) =                |               | 28.11** | F(2, 1001) =        |               | 28.05** | F(2, 1001) =        |               | 30.55** | F(2, 1001) =        |               | 29.74** | F(2, 1001) =        |               | 30.35** |
| Adjusted <i>R</i> <sup>2</sup> | .17                        |               |         | .17                 |               |         | .17                 |               |         | .17                 |               |         | .17                 |               |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX K: Listwise Deletion for Rehearsal

Table 7b

Listwise deletion and imputed scores: Hierarchical regression for variables predicting rehearsal

| Rehearsal                     |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
|-------------------------------|----------------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|
| Predictors                    | Original (listwise delete) |               |         | Imputed (version 1) |               |         | Imputed (version 2) |               |         | Imputed (version 3) |               |         | Imputed (version 4) |               |         |
|                               | <i>B</i>                   | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       |
| <i>Step 1</i>                 |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                     | -0.12                      | (0.08)        | -.04    | -0.15               | (0.08)        | -.05    | -0.14               | (0.08)        | -.05    | -0.16               | (0.08)        | -.05    | -0.15               | (0.08)        | -.05    |
| 2. Utility value              | 0.29                       | (0.04)        | .26**   | 0.28                | (0.04)        | .24**   | 0.28                | (0.04)        | .24**   | 0.28                | (0.04)        | .24**   | 0.28                | (0.04)        | .24**   |
| 3. Self-Efficacy              | 0.27                       | (0.04)        | .21**   | 0.28                | (0.04)        | .22**   | 0.28                | (0.04)        | .22**   | 0.28                | (0.04)        | .22**   | 0.28                | (0.04)        | .21**   |
| <i>F change</i>               | F(5, 980) =                |               | 37.14** | F(5, 1003) =        |               | 37.14** | F(5, 1003) =        |               | 37.37** | F(5, 1003) =        |               | 37.59** | F(5, 1003) =        |               | 36.93** |
| <i>Adjusted R2</i>            | .16                        |               |         | .15                 |               |         | .16                 |               |         | .16                 |               |         | .16                 |               |         |
| <i>Step 2</i>                 |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                     | -0.14                      | (0.08)        | -.05    | -0.16               | (0.08)        | -.05    | -0.16               | (0.08)        | -.06*   | -0.17               | (0.08)        | -.06*   | -0.16               | (0.08)        | -.06*   |
| 2. Utility value              | 0.13                       | (0.04)        | .11**   | 0.11                | (0.04)        | .09**   | 0.11                | (0.04)        | .10**   | 0.11                | (0.04)        | .10**   | 0.11                | (0.04)        | .10**   |
| 3. Self-Efficacy              | 0.15                       | (0.04)        | .12**   | 0.16                | (0.04)        | .12**   | 0.16                | (0.04)        | .12**   | 0.16                | (0.04)        | .12**   | 0.15                | (0.04)        | .12**   |
| 4. Intrinsic reasons          | 0.30                       | (0.04)        | .25**   | 0.31                | (0.04)        | .26**   | 0.31                | (0.04)        | .26**   | 0.30                | (0.04)        | .25**   | 0.30                | (0.04)        | .25**   |
| 5. Self-worth concerns        | 0.18                       | (0.02)        | .26**   | 0.19                | (0.02)        | .27**   | 0.19                | (0.02)        | .27**   | 0.19                | (0.02)        | .26**   | 0.19                | (0.02)        | .27**   |
| <i>F change</i>               | F(2, 978) =                |               | 69.43** | F(2, 1001) =        |               | 74.27** | F(2, 1001) =        |               | 74.16** | F(2, 1001) =        |               | 70.88** | F(2, 1001) =        |               | 74.03** |
| <i>Adjusted R<sup>2</sup></i> | .26                        |               |         | .26                 |               |         | .27                 |               |         | .26                 |               |         | .26                 |               |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX L: Listwise Deletion for Critical Thinking

Table 7c

Listwise deletion and imputed scores: Hierarchical regression for variables predicting critical thinking

| Critical Thinking      |                            |        |         |                     |        |         |                     |        |         |                     |        |         |                     |        |         |
|------------------------|----------------------------|--------|---------|---------------------|--------|---------|---------------------|--------|---------|---------------------|--------|---------|---------------------|--------|---------|
| Predictors             | Original (listwise delete) |        |         | Imputed (version 1) |        |         | Imputed (version 2) |        |         | Imputed (version 3) |        |         | Imputed (version 4) |        |         |
|                        | B                          | (SE)   | β       | B                   | (SE)   | β       | B                   | (SE)   | β       | B                   | (SE)   | β       | B                   | (SE)   | β       |
| Step 1                 |                            |        |         |                     |        |         |                     |        |         |                     |        |         |                     |        |         |
| 1. Gender              | 0.01                       | (0.08) | .00     | 0.01                | (0.08) | .00     | -0.02               | (0.08) | -.00    | -0.01               | (0.08) | -.01    | -0.00               | (0.08) | .00     |
| 2. Utility value       | 0.22                       | (0.04) | .21**   | 0.24                | (0.03) | .22**   | 0.22                | (0.03) | .21**   | 0.22                | (0.03) | .21**   | 0.22                | (0.03) | .21**   |
| 3. Self-Efficacy       | 0.29                       | (0.04) | .24**   | 0.29                | (0.04) | .24**   | 0.29                | (0.04) | .24**   | 0.28                | (0.04) | .23**   | 0.29                | (0.04) | .24**   |
| <i>F change</i>        | F(5, 981) =                |        | 31.82** | F(5, 1003) =        |        | 33.76** | F(5, 1003) =        |        | 32.01** | F(5, 1003) =        |        | 31.01** | F(5, 1003) =        |        | 31.60** |
| Adjusted R2            | .14                        |        |         | .14                 |        |         | .13                 |        |         | .13                 |        |         | .14                 |        |         |
| Step 2                 |                            |        |         |                     |        |         |                     |        |         |                     |        |         |                     |        |         |
| 1. Gender              | -0.01                      | (0.07) | -.01    | -0.00               | (0.07) | .00     | -0.01               | (0.07) | -.00    | -0.02               | (0.07) | -.01    | -0.01               | (0.07) | -.00    |
| 2. Utility value       | 0.04                       | (0.04) | .03     | 0.05                | (0.04) | .05     | 0.04                | (0.04) | .03     | 0.04                | (0.04) | .03     | 0.04                | (0.04) | .03     |
| 3. Self-Efficacy       | 0.13                       | (0.04) | .11**   | 0.13                | (0.04) | .11**   | 0.13                | (0.04) | .11**   | 0.12                | (0.04) | .11**   | 0.13                | (0.04) | .11**   |
| 4. Intrinsic reasons   | 0.47                       | (0.02) | .42**   | 0.47                | (0.04) | .41**   | 0.47                | (0.04) | .41**   | 0.47                | (0.04) | .42**   | 0.47                | (0.04) | .41**   |
| 5. Self-worth concerns | -0.01                      | (0.02) | -.02    | -0.01               | (0.02) | -.02    | -0.01               | (0.02) | -.02    | -0.02               | (0.02) | -.02    | -0.01               | (0.02) | -.02    |
| <i>F change</i>        | F(2, 979) =                |        | 69.28** | F(2, 1001) =        |        | 69.31** | F(2, 1001) =        |        | 70.01** | F(2, 1001) =        |        | 70.47** | F(2, 1001) =        |        | 68.78** |
| Adjusted R2            | .24                        |        |         | .25                 |        |         | .24                 |        |         | .24                 |        |         | .24                 |        |         |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male



## APPENDIX M: Listwise Deletion for Meta-cognitive self-regulation

Table 7d

Listwise deletion and imputed scores: Hierarchical regression for variables predicting meta-cognitive self-regulation

| Meta-cognitive self-regulation |                            |               |         |                     |               |          |                     |               |          |                     |               |          |                     |               |          |
|--------------------------------|----------------------------|---------------|---------|---------------------|---------------|----------|---------------------|---------------|----------|---------------------|---------------|----------|---------------------|---------------|----------|
| Predictors                     | Original (listwise delete) |               |         | Imputed (version 1) |               |          | Imputed (version 2) |               |          | Imputed (version 3) |               |          | Imputed (version 4) |               |          |
|                                | <i>B</i>                   | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β        | <i>B</i>            | ( <i>SE</i> ) | β        | <i>B</i>            | ( <i>SE</i> ) | β        | <i>B</i>            | ( <i>SE</i> ) | β        |
| <i>Step 1</i>                  |                            |               |         |                     |               |          |                     |               |          |                     |               |          |                     |               |          |
| 1. Gender                      | -0.02                      | (0.06)        | -.01    | -0.03               | (0.06)        | -.01     | -0.03               | (0.05)        | -.02     | -0.02               | (0.06)        | -.01     | -0.03               | (0.05)        | -.02     |
| 2. Utility value               | 0.24                       | (0.02)        | .30**   | 0.24                | (0.02)        | .30**    | 0.23                | (0.02)        | .30**    | 0.24                | (0.02)        | .30**    | 0.24                | (0.02)        | .30**    |
| 3. Self-Efficacy               | 0.25                       | (0.03)        | .28**   | 0.25                | (0.03)        | .28**    | 0.25                | (0.03)        | .28**    | 0.26                | (0.03)        | .29**    | 0.26                | (0.03)        | .29**    |
| <i>F</i> change                | F(5, 983) =                |               | 61.01** | F(5, 1003) =        |               | 61.73**  | F(5, 1003) =        |               | 59.66**  | F(5, 1003) =        |               | 61.91**  | F(5, 1003) =        |               | 63.15**  |
| Adjusted <i>R</i> <sup>2</sup> |                            |               |         |                     |               |          |                     |               |          |                     |               |          |                     |               |          |
| <i>Step 2</i>                  |                            |               |         |                     |               |          |                     |               |          |                     |               |          |                     |               |          |
| 1. Gender                      | -0.03                      | (0.05)        | -.02    | -0.04               | (0.05)        | -.02     | -0.04               | (0.05)        | -.02     | -0.04               | (0.05)        | -.02     | -0.04               | (0.05)        | -.02     |
| 2. Utility value               | 0.08                       | (0.03)        | .10**   | 0.08                | (0.02)        | .10**    | 0.78                | (0.02)        | .10**    | 0.78                | (0.02)        | .10**    | 0.78                | (0.02)        | .11**    |
| 3. Self-Efficacy               | 0.13                       | (0.03)        | .14**   | 0.12                | (0.03)        | .14**    | 0.12                | (0.03)        | .14**    | 0.12                | (0.03)        | .14**    | 0.12                | (0.03)        | .14**    |
| 4. Intrinsic reasons           | 0.36                       | (0.03)        | .42**   | 0.36                | (0.03)        | .43**    | 0.36                | (0.03)        | .43**    | 0.36                | (0.03)        | .43**    | 0.36                | (0.03)        | .42**    |
| 5. Self-worth concerns         | 0.07                       | (0.01)        | .13**   | 0.07                | (0.01)        | .13**    | 0.07                | (0.01)        | .13**    | 0.07                | (0.01)        | .13**    | 0.07                | (0.01)        | .14**    |
| <i>F</i> change                | F(2, 981) =                |               | 99.76** | F(2, 1001) =        |               | 101.92** | F(2, 1001) =        |               | 102.53** | F(2, 1001) =        |               | 102.29** | F(2, 1001) =        |               | 103.33** |
| Adjusted <i>R</i> <sup>2</sup> |                            |               |         |                     |               |          |                     |               |          |                     |               |          |                     |               |          |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX N: Listwise Deletion for Test Anxiety

Table 7e

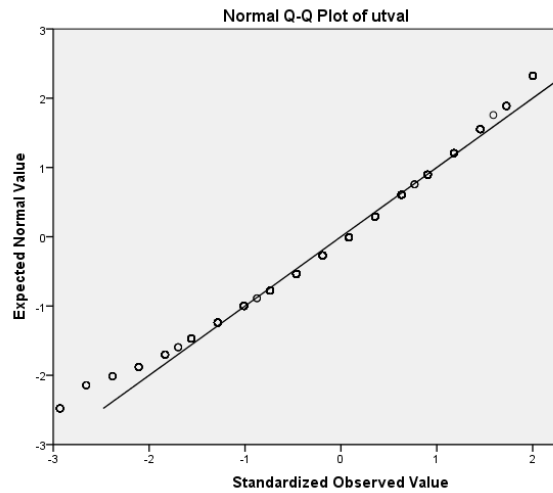
Listwise deletion and imputed scores: Hierarchical regression for variables predicting test anxiety

| Test anxiety                   |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
|--------------------------------|----------------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|---------------------|---------------|---------|
| Predictors                     | Original (listwise delete) |               |         | Imputed (version 1) |               |         | Imputed (version 2) |               |         | Imputed (version 3) |               |         | Imputed (version 4) |               |         |
|                                | <i>B</i>                   | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       | <i>B</i>            | ( <i>SE</i> ) | β       |
| <i>Step 1</i>                  |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                      | -0.08                      | (0.08)        | -.03    | -0.10               | (0.08)        | -.03    | -0.09               | (0.08)        | -.03    | -0.10               | (0.08)        | -.04    | -0.10               | (0.08)        | -.03    |
| 2. Utility value               | 0.22                       | (0.04)        | .20**   | 0.22                | (0.04)        | .20**   | 0.21                | (0.04)        | .19**   | 0.21                | (0.04)        | .19**   | 0.21                | (0.04)        | .19**   |
| 3. Self-Efficacy               | -0.40                      | (0.04)        | -.31**  | -0.39               | (0.04)        | -.30**  | -0.39               | (0.04)        | -.30**  | -0.39               | (0.04)        | -.30**  | -0.38               | (0.04)        | -.30**  |
| <i>F</i> change                | F(5, 987) =                |               | 25.96** | F(5, 1003) =        |               | 25.51** | F(5, 1003) =        |               | 25.49** | F(5, 1003) =        |               | 25.83** | F(5, 1003) =        |               | 25.11** |
| Adjusted <i>R</i> <sup>2</sup> | .11                        |               |         | .11                 |               |         | .11                 |               |         | .11                 |               |         | .11                 |               |         |
| <i>Step 2</i>                  |                            |               |         |                     |               |         |                     |               |         |                     |               |         |                     |               |         |
| 1. Gender                      | -0.10                      | (0.08)        | -.04    | -0.10               | (0.08)        | -.04    | -0.10               | (0.08)        | -.04    | -0.12               | (0.08)        | -.04    | -0.10               | (0.08)        | -.04    |
| 2. Utility value               | 0.14                       | (0.04)        | .12**   | 0.13                | (0.04)        | .12**   | 0.13                | (0.04)        | .11**   | 0.12                | (0.04)        | .11**   | 0.13                | (0.04)        | .12**   |
| 3. Self-Efficacy               | -0.44                      | (0.04)        | -.34**  | -0.44               | (0.04)        | -.34**  | -0.43               | (0.04)        | -.34**  | -0.44               | (0.04)        | -.34**  | -0.43               | (0.04)        | -.33**  |
| 4. Intrinsic reasons           | 0.06                       | (0.04)        | .05     | 0.07                | (0.04)        | .06     | 0.07                | (0.04)        | .06     | 0.08                | (0.04)        | .07     | 0.06                | (0.04)        | .05     |
| 5. Self-worth concerns         | 0.25                       | (0.02)        | .36**   | 0.25                | (0.02)        | .36**   | 0.25                | (0.02)        | .35**   | 0.25                | (0.02)        | .36**   | 0.25                | (0.02)        | .36**   |
| <i>F</i> change                | F(2, 985) =                |               | 80.32** | F(2, 1001) =        |               | 82.58** | F(2, 1001) =        |               | 79.71** | F(2, 1001) =        |               | 81.88** | F(2, 1001) =        |               | 82.95** |
| Adjusted <i>R</i> <sup>2</sup> | .24                        |               |         | .23                 |               |         | .23                 |               |         | .23                 |               |         | .24                 |               |         |

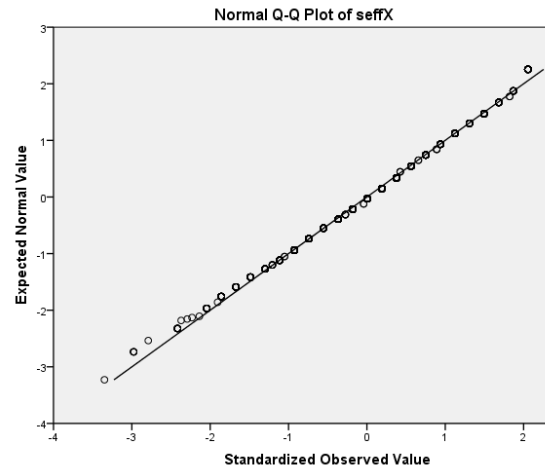
Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX O: Q-Q Plot for Independent Variables

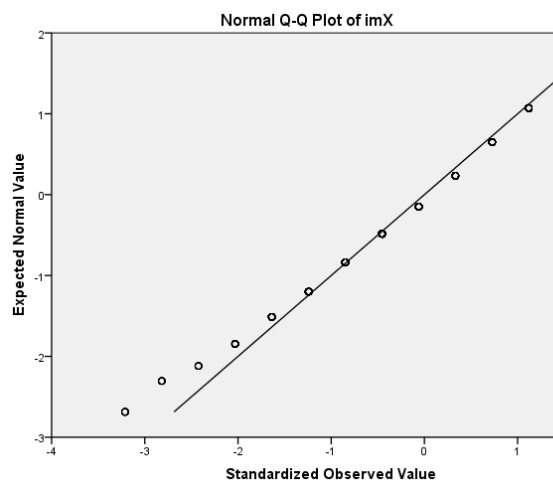
**Normal Q-Q Plot for Utility Value**



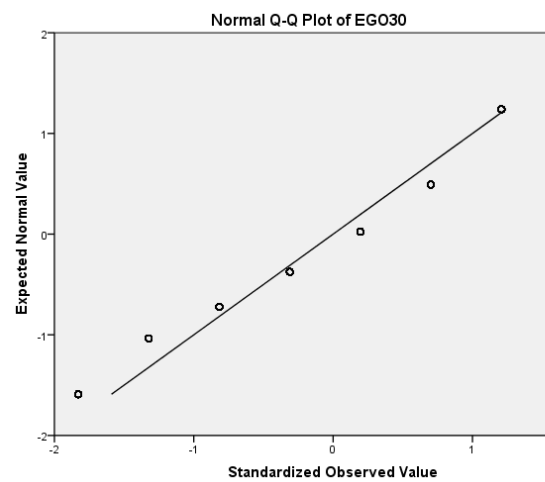
**Normal Q-Q Plot for Self-efficacy**



**Normal Q-Q Plot for Intrinsic Motivation**

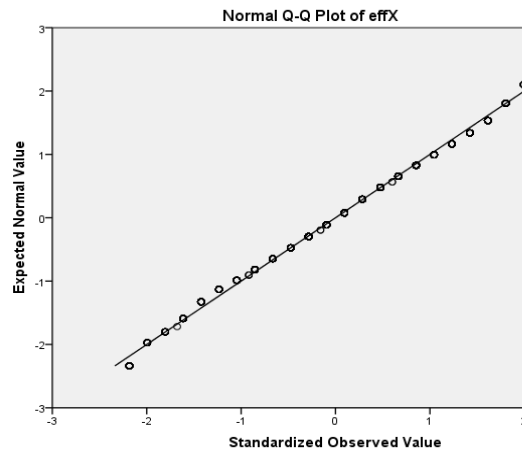


**Normal Q-Q Plot for Self-worth concerns**

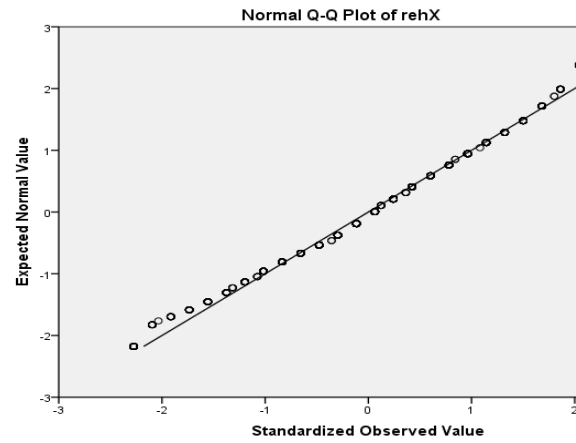


## APPENDIX P: Q-Q Plot for Dependent Variables

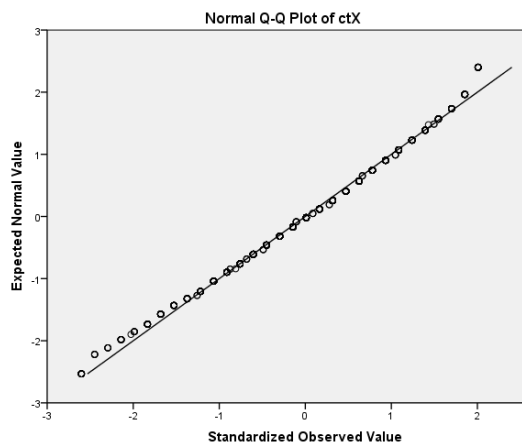
**Normal Q-Q Plot for Effort Regulation**



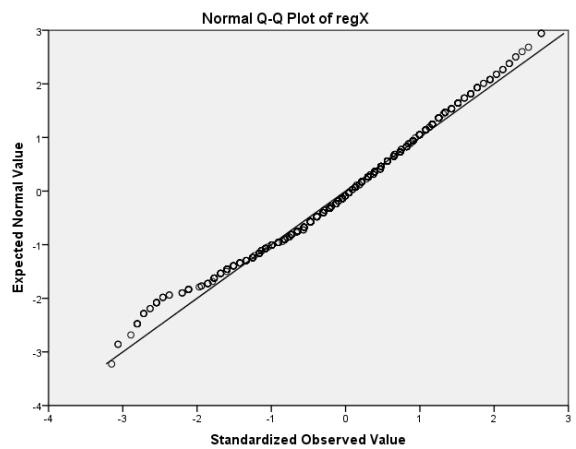
**Normal Q-Q Plot for Rehearsal**



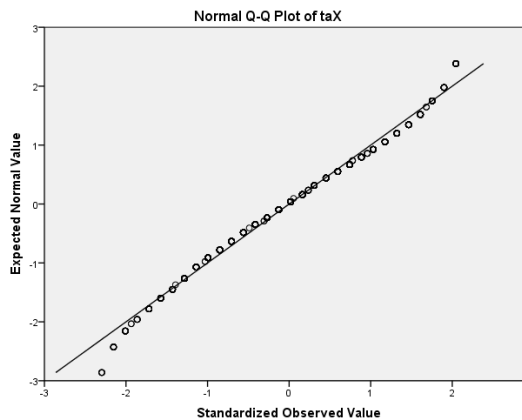
**Normal Q-Q Plot for Critical Thinking**



**Normal Q-Q Plot for Meta-cognitive Self-regulation**



**Normal Q-Q Plot for Test Anxiety**



## APPENDIX Q: Bivariate and Descriptive Statistics for Non-repeaters

Table 8a  
Means, standard deviations and bivariate correlations for the non-repeat group

| Variables                   | <i>M</i> | <i>SD</i> | 1    | 2     | 3      | 4     | 5     | 6     | 7     | 8     | 9   | 10 |
|-----------------------------|----------|-----------|------|-------|--------|-------|-------|-------|-------|-------|-----|----|
| 1. Gender                   | 0.34     | 0.47      | -    |       |        |       |       |       |       |       |     |    |
| Motivational predictors     |          |           |      |       |        |       |       |       |       |       |     |    |
| 2. Utility value            | 4.54     | 1.15      | -.02 | -     |        |       |       |       |       |       |     |    |
| 3. Self-efficacy            | 4.81     | 1.06      | .02  | .31** | -      |       |       |       |       |       |     |    |
| 4. Intrinsic reasons        | 5.19     | 1.17      | .05  | .37** | .34**  | -     |       |       |       |       |     |    |
| 5. Self-worth concerns      | 4.27     | 1.96      | -.00 | .17** | .03    | .03   | -     |       |       |       |     |    |
| Motivational correlates     |          |           |      |       |        |       |       |       |       |       |     |    |
| 6. Effort regulation        | 3.85     | 1.34      | .04  | .27** | .30**  | .26** | .19** | -     |       |       |     |    |
| 7. Rehearsal                | 3.99     | 1.32      | .01  | .29** | .26**  | .14*  | .36** | .46** | -     |       |     |    |
| 8. Critical Thinking        | 4.43     | 1.23      | .05  | .20** | .25**  | .39** | .02   | .24** | .28** | -     |     |    |
| 9. Metacognitive regulation | 4.41     | 0.95      | .04  | .35** | .37**  | .36** | .18** | .57** | .67** | .50** | -   |    |
| 10. Test anxiety            | 3.87     | 1.35      | .00  | .09   | -.33** | -.12* | .40** | -.04  | .21** | -.06  | .04 | -  |

Note. \*  $p < .05$ , \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX R: Bivariate and Descriptive Statistics for Past-repeaters

Table 8b  
Means, standard deviations and bivariate correlations for the past-repeat group

| Variables                   | <i>M</i> | <i>SD</i> | 1     | 2     | 3      | 4     | 5     | 6     | 7     | 8     | 9     | 10 |
|-----------------------------|----------|-----------|-------|-------|--------|-------|-------|-------|-------|-------|-------|----|
| 1. Gender                   | 0.56     | 0.50      | -     |       |        |       |       |       |       |       |       |    |
| Motivational predictors     |          |           |       |       |        |       |       |       |       |       |       |    |
| 2. Utility value            | 4.57     | 1.26      | -.07  | -     |        |       |       |       |       |       |       |    |
| 3. Self-efficacy            | 4.71     | 1.08      | .02   | .43** | -      |       |       |       |       |       |       |    |
| 4. Intrinsic reasons        | 4.99     | 1.33      | -.04  | .36** | .42**  | -     |       |       |       |       |       |    |
| 5. Self-worth concerns      | 4.74     | 1.98      | .03   | .19** | .13**  | .04   | -     |       |       |       |       |    |
| Motivational correlates     |          |           |       |       |        |       |       |       |       |       |       |    |
| 6. Effort regulation        | 3.92     | 1.31      | .03   | .30** | .29**  | .22** | .16*  | -     |       |       |       |    |
| 7. Rehearsal                | 4.28     | 1.43      | -.11* | .39** | .34**  | .28** | .33** | .49** | -     |       |       |    |
| 8. Critical Thinking        | 4.34     | 1.34      | -.07  | .34** | .34**  | .46** | .05   | .25** | .41** | -     |       |    |
| 9. Metacognitive regulation | 4.47     | 0.98      | -.06  | .45** | .39**  | .40** | .27** | .57** | .73** | .57** | -     |    |
| 10. Test anxiety            | 4.40     | 1.36      | -.09  | .10*  | -.22** | -.08  | .33** | -.06  | .18** | .04   | .15** | -  |

Note. \*  $p < .05$ , \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male

## APPENDIX S: Bivariate and Descriptive Statistics for Current Repeaters

Table 8c  
Means, standard deviations and bivariate correlations for the current-repeat group

| Variables                   | <i>M</i> | <i>SD</i> | 1    | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9    | 10 |
|-----------------------------|----------|-----------|------|-------|-------|-------|-------|-------|-------|-------|------|----|
| 1. Gender                   | 0.50     | 0.50      | -    |       |       |       |       |       |       |       |      |    |
| Motivational predictors     |          |           |      |       |       |       |       |       |       |       |      |    |
| 2. Utility value            | 4.59     | 1.23      | .00  | -     |       |       |       |       |       |       |      |    |
| 3. Self-efficacy            | 4.93     | 1.07      | .06  | .34** | -     |       |       |       |       |       |      |    |
| 4. Intrinsic reasons        | 5.09     | 1.27      | .11  | .34** | .38** | -     |       |       |       |       |      |    |
| 5. Self-worth concerns      | 4.85     | 1.93      | -.01 | .12   | .18** | .04   | -     |       |       |       |      |    |
| Motivational correlates     |          |           |      |       |       |       |       |       |       |       |      |    |
| 6. Effort regulation        | 3.81     | 1.29      | .01  | .22** | .38** | .25** | .08   | -     |       |       |      |    |
| 7. Rehearsal                | 4.18     | 1.39      | .01  | .26** | .32** | .28** | .25** | .53** | -     |       |      |    |
| 8. Critical Thinking        | 4.43     | 1.34      | .09  | .35** | .35** | .41** | .08   | .25** | .33** | -     |      |    |
| 9. Metacognitive regulation | 4.50     | 0.95      | .01  | .42** | .42** | .45** | .16*  | .52** | .71** | .55** | -    |    |
| 10. Test anxiety            | 4.16     | 1.40      | -.06 | .03   | -.12  | -.01  | .32** | .04   | .24** | .01   | .14* | -  |

Note. \*  $p < .05$ , \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = males

## APPENDIX T: The Full List of the Words Included under Each Category for Non-repeat Group

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives       | Time Orientation |               |              | Personal Concerns |            |          |             |
|---------------------|-------------------|------------------|---------------------|----------------------|--------------|------------------|---------------|--------------|-------------------|------------|----------|-------------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |              | Focus past       | Focus present | Focus future | work              | leisure    | home     | money       |
| benefit             | blame             | family           | motivate            | look                 | love         | got              | goes          | coming       | wait              | book       | family   | business    |
| best                | blaming           | father           | motivation          | video                | relations    | created          | leave         | future       | future            | books      | weekend  | scholarship |
| better              | boring            | mother           | motivational        | watch                | girlfriend   | tried            | now           | then         | then              | work       | book     | poor        |
| brave               | fail              | parents          | question            | feel                 | sister       | heard            | open          | may          | stop              | works      | books    | free        |
| challenge           | failed            | sister           | answers             | heard                | family       | listened         | pass          | might        | previous          | learn      | club     | buy         |
| created             | failure           | blame            | choose              | listen               | parents      | said             | sit           | will         | first             | write      | clubs    |             |
| desire              | impatient         | engaged          | concentrate         | listened             | helps        | wanted           | start         | won't        | sometimes         | fail       | music    |             |
| do not like         | lazy              | helps            | curious             | listening            | hello        | gave             | stay          |              | always            | failed     | musician |             |
| engaged             | poor              | love             | feel                | said                 | meet         | been             | today         |              | everytime         | failure    | video    |             |
| enjoy               | tension           | advice           | ideas               | say                  | our          | did              | wait          |              | never             | studied    | jokes    |             |
| free                | worry             | ask              | information         | speak                | ourselves    | finished         | perfect       |              | since             | ambitious  | relaxed  |             |
| funny               |                   | cultural         | know                | speaking             | social       | had              | get           |              | date              | education  | movies   |             |
| good                |                   | cultures         | knowledge           | hand                 | us           | helped           | take          |              | after             | employee   | sport    |             |
| happy               |                   | date             | learn               | hard                 | we           | previous         | takes         |              | before            | law        | sports   |             |
| helps               |                   | debate           | learning            | music                | club         | stayed           | helps         |              | beginning         | professor  | youtube  |             |
| important           |                   | discussions      | lesson              | musician             | clubs        | stood            | meet          |              | childhood         | student    | family   |             |
| improve             |                   | everyone         | mean                | rings                | traditions   | studied          | try           |              | day               | teacher    | dorm     |             |
| interesting         |                   | everything       | meaning             | heard                | try          | was              | work          |              | during            | success    | homework |             |
| jokes               |                   | formal           | prefer              | listen               | trying       | were             | works         |              | end               | successful | home     |             |
| love                |                   | gave             | recognize           | listened             | motivate     |                  | listen        |              | evening           | achieve    | window   |             |
| perfect             |                   | girlfriend       | relations           | listening            | motivation   |                  | say           |              | finish            | achieved   |          |             |
| relaxed             |                   | give             | remember            | speak                | motivational |                  | speak         |              | hour              | last       |          |             |
| satisfy             |                   | heard            | statements          | speaking             | created      |                  | feel          |              | hours             | goals      |          |             |



| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives      | Time Orientation |               |              | Personal Concerns |              |      |       |
|---------------------|-------------------|------------------|---------------------|----------------------|-------------|------------------|---------------|--------------|-------------------|--------------|------|-------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |             | Focus past       | Focus present | Focus future | work              | leisure      | home | money |
| successful          |                   | hello            | thinking            | musician             | fail        |                  | can't         |              | later             | motivate     |      |       |
| useful              |                   | help             | understand          | rings                | failure     |                  | haven't       |              | minutes           | motivation   |      |       |
| would not like      |                   | her              | understanding       |                      | benefit     |                  | look          |              | months            | motivational |      |       |
|                     |                   | language         | created             | hand                 | best        |                  | watch         |              | new               | challenging  |      |       |
|                     |                   | listen           | affect              | feel                 | better      |                  | need          |              | next              | accomplish   |      |       |
|                     |                   | listened         | because             | hard                 | challenging |                  | want          |              | rhythm            | skill        |      |       |
|                     |                   | listening        | depends             |                      | improve     |                  | depends       |              | saturday          | skills       |      |       |
|                     |                   | meet             | how                 |                      | success     |                  | know          |              | seconds           | learning     |      |       |
|                     |                   | name             | influence           |                      | successful  |                  | learn         |              | speed             | lesson       |      |       |
|                     |                   | our              | make                |                      | lazy        |                  | mean          |              | still             | lessons      |      |       |
|                     |                   | ourselves        | making              |                      | able        |                  | means         |              | time              | business     |      |       |
|                     |                   | people           | react               |                      | accomplish  |                  | think         |              | times             | class        |      |       |
|                     |                   | people's         | since               |                      | achieve     |                  | understand    |              | until             | companies    |      |       |
|                     |                   | person           | sources             |                      | achieved    |                  | make          |              | week              | course       |      |       |
|                     |                   | question         | use                 |                      | ambitious   |                  | use           |              | weeks             | coursebook   |      |       |
|                     |                   | role             | desire              |                      | first       |                  | ask           |              | when              | department   |      |       |
|                     |                   | said             | perfect             |                      | goal        |                  | give          |              | while             | dormitory    |      |       |
|                     |                   | say              | adjust              |                      | goals       |                  | worry         |              | year              | dormitory    |      |       |
|                     |                   | she              | different           |                      | skill       |                  | am            |              | years             | exam         |      |       |
|                     |                   | social           | directly            |                      | skills      |                  | are           |              |                   | faculty      |      |       |
|                     |                   | speak            | entire              |                      | tried       |                  | be            |              |                   | grade        |      |       |
|                     |                   | speaking         | some                |                      | work        |                  | can           |              |                   | grades       |      |       |
|                     |                   | talking          | something           |                      | works       |                  | do            |              |                   | hardworking  |      |       |
|                     |                   | their            | sometimes           |                      | desire      |                  | doesn't       |              |                   | homework     |      |       |
|                     |                   | them             | sort                |                      | perfect     |                  | don't         |              |                   | instructors  |      |       |
|                     |                   | they             | specific            |                      | influence   |                  | have          |              |                   | math         |      |       |

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives    | Time Oreintation |               |              | Personal Concerns |                |            |
|---------------------|-------------------|------------------|---------------------|----------------------|-----------|------------------|---------------|--------------|-------------------|----------------|------------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |           | Focus past       | Focus present | Focus future | work              | leisure        | home money |
|                     |                   | we               | try                 |                      | good      |                  | is            |              |                   | quizlet        |            |
|                     |                   | who              | trying              |                      | important |                  | keep          |              |                   | read           |            |
|                     |                   | whom             | want                |                      | poor      |                  | write         |              |                   | research       |            |
|                     |                   | you              | wanted              |                      | big       |                  |               |              |                   | responsibility |            |
|                     |                   | your             | without             |                      | down      |                  |               |              |                   | scholarship    |            |
|                     |                   | date             | would               |                      | education |                  |               |              |                   | school         |            |
|                     |                   | girlfriend       | created             |                      | employees |                  |               |              |                   | science        |            |
|                     |                   |                  | affect              |                      | get       |                  |               |              |                   | scientific     |            |
|                     |                   |                  | because             |                      | got       |                  |               |              |                   | study          |            |
|                     |                   |                  | depends             |                      | high      |                  |               |              |                   | studying       |            |
|                     |                   |                  | how                 |                      | law       |                  |               |              |                   | thesis         |            |
|                     |                   |                  | influence           |                      | officer   |                  |               |              |                   | university     |            |
|                     |                   |                  | make                |                      | order     |                  |               |              |                   | writing        |            |
|                     |                   |                  | making              |                      | over      |                  |               |              |                   |                |            |
|                     |                   |                  | react               |                      | professor |                  |               |              |                   |                |            |
|                     |                   |                  | since               |                      | rules     |                  |               |              |                   |                |            |
|                     |                   |                  | sources             |                      | stop      |                  |               |              |                   |                |            |
|                     |                   |                  | use                 |                      | student   |                  |               |              |                   |                |            |
|                     |                   |                  | why                 |                      | students  |                  |               |              |                   |                |            |
|                     |                   |                  | need                |                      | take      |                  |               |              |                   |                |            |
|                     |                   |                  | never               |                      | takes     |                  |               |              |                   |                |            |
|                     |                   |                  | opinion             |                      | teacher   |                  |               |              |                   |                |            |
|                     |                   |                  |                     |                      | teachers  |                  |               |              |                   |                |            |
|                     |                   |                  |                     |                      | teacher's |                  |               |              |                   |                |            |

## APPENDIX U: The Full List of the Words Included under Each Category for Past-repeat Group

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives      | Time Orientation |               |              | Personal Concerns |          |        |             |
|---------------------|-------------------|------------------|---------------------|----------------------|-------------|------------------|---------------|--------------|-------------------|----------|--------|-------------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |             | Focus past       | Focus present | Focus future | work              | leisure  | home   | money       |
| beneficial          | aggression        | encourage        | become              | feel                 | love        | got              | get           | wants        | leads             | books    | family | businessman |
| better              | aggressive        | popular          | believe             | listen               | try         | tried            | take          | hopeful      | work              | family   | door   | pay         |
| calm                | angry             | blame            | influence           | listening            | trying      | worked           | try           | may          | learn             | clubs    | home   | sells       |
| care                | anxious           | blamed           | problem             | said                 | problem     | lived            | tries         | might        | write             | coffee   |        | spend       |
| challenging         | bad               | said             | problems            | say                  | problems    | said             | work          | expect       | worked            | exercise |        | money       |
| don't like          | blame             | you              | hopeful             | says                 | motivated   | saw              | share         | then         | learnt            | music    |        |             |
| easier              | blamed            | parents          | hopes               | speak                | motivates   | watched          | live          | will         | studied           | songs    |        |             |
| easy                | bored             | say              | distractions        | speaking             | motivation  | didn't           | feel          | won't        | fail              | videos   |        |             |
| encourage           | bother            | they             | actually            | speaks               | control     | wanted           | listen        |              | failed            | fun      |        |             |
| encouraged          | cruel             | give             | curious             | pain                 | influence   | used             | say           |              | success           | relax    |        |             |
| excited             | despair           | provide          | decided             | laugh                | leads       | decided          | says          |              | achieve           | relaxed  |        |             |
| fun                 | difficult         | she              | used                | experience           | purpose     | learnt           | speak         |              | goals             | dream    |        |             |
| good                | difficulties      | speak            | differences         | hard                 | friend      | talked           | speaks        |              | ambition          |          |        |             |
| great               | fail              | speaks           | attention           | harder               | friends     | did              | look          |              | education         |          |        |             |
| happiness           | failed            | mother           | choose              | look                 | family      | left             | see           |              | law               |          |        |             |
| happy               | fear              | friends          | conscious           | looking              | parents     | passed           | watch         |              | lawyer            |          |        |             |
| hopeful             | ignore            | their            | control             | music                | encourage   | started          | can't         |              | management        |          |        |             |
| hopes               | lazy              | teenager         | lesson              | saw                  | encouraged  | studied          | hopes         |              | student           |          |        |             |
| like                | low               | listening        | lessons             | see                  | share       | was              | need          |              | students          |          |        |             |
| importance          | pain              | ask              | different           | shout                | children    | went             | want          |              | teach             |          |        |             |
| important           | pressure          | we               | information         | show                 | communicate | were             | wants         |              | teacher           |          |        |             |
| improve             | problem           | group            | expect              | songs                | group       |                  | make          |              | teachers          |          |        |             |

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives       | Time Oreintation |                | Personal Concerns |              |         |      |       |
|---------------------|-------------------|------------------|---------------------|----------------------|--------------|------------------|----------------|-------------------|--------------|---------|------|-------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |              | Focus past       | Focus present  | Focus future      | work         | leisure | home | money |
| love                | sad               | children         | feel                | tight                | our          |                  | become         |                   | teacher's    |         |      |       |
| ok                  | sorry             | self             | find                | videos               | social       |                  | believe        |                   | motivated    |         |      |       |
| opportunity         | stress            | people           | forever             | watch                | teenager     |                  | find           |                   | motivates    |         |      |       |
| please              | stressed          | help             | know                | watched              | weakness     |                  | know           |                   | motivation   |         |      |       |
| popular             | struggle          | people's         | leads               | look                 | work         |                  | learn          |                   | challenging  |         |      |       |
| relax               | struggler         | person           | learn               | looking              | fail         |                  | means          |                   | effort       |         |      |       |
| relaxed             | upset             | them             | learning            | saw                  | failed       |                  | realize        |                   | learning     |         |      |       |
| share               | worry             | formal           | learnt              | see                  | low          |                  | think          |                   | lesson       |         |      |       |
| sincere             |                   | social           | make                | show                 | struggle     |                  | understan<br>d |                   | lessons      |         |      |       |
| strong              |                   | family           | means               | videos               | struggler    |                  | ask            |                   | academic     |         |      |       |
| success             |                   | talk             | memorize            | listen               | bad          |                  | give           |                   | books        |         |      |       |
| successful          |                   | private          | might               | listening            | difficult    |                  | provide        |                   | businessman  |         |      |       |
| to like             |                   | says             | motivated           | said                 | difficulties |                  | talk           |                   | class        |         |      |       |
| treat               |                   | listen           | motivates           | say                  | lazy         |                  | tell           |                   | classroom    |         |      |       |
| useful              |                   | someone          | motivation          | says                 | better       |                  | worry          |                   | computer     |         |      |       |
| well                |                   | advice           | need                | speak                | challenging  |                  | ignore         |                   | construction |         |      |       |
|                     |                   | us               | never               | speaking             | excited      |                  | care           |                   | course       |         |      |       |
|                     |                   | our              | possible            | speaks               | good         |                  | to like        |                   | cv           |         |      |       |
|                     |                   | father           | purpose             | laugh                | great        |                  | am             |                   | department   |         |      |       |
|                     |                   | his              | questions           | music                | importance   |                  | are            |                   | departments  |         |      |       |
|                     |                   | he               | realize             | shout                | important    |                  | attend         |                   | develop      |         |      |       |
|                     |                   | talked           | recognize           | songs                | improve      |                  | be             |                   | elementary   |         |      |       |
|                     |                   | suggestions      | result              | feel                 | opportunity  |                  | can            |                   | exam         |         |      |       |
|                     |                   | language         | should              | pain                 | strong       |                  | come           |                   | exams        |         |      |       |
|                     |                   | kids             |                     | hard                 | success      |                  | continue       |                   | feedback     |         |      |       |

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives     | Time Orientation |               |              | Personal Concerns |         |      |       |
|---------------------|-------------------|------------------|---------------------|----------------------|------------|------------------|---------------|--------------|-------------------|---------|------|-------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |            | Focus past       | Focus present | Focus future | work              | leisure | home | money |
|                     |                   | everyone         | something           |                      | achieve    |                  | don't         |              | graduate          |         |      |       |
|                     |                   | comment          | sometimes           |                      | advance    |                  | go            |              | job               |         |      |       |
|                     |                   | friend           | specific            |                      | ambition   |                  | happen        |              | pay               |         |      |       |
|                     |                   | who              | than                |                      | beg        |                  | has           |              | psychology        |         |      |       |
|                     |                   | telling          | think               |                      | big        |                  | have          |              | quizzlet          |         |      |       |
|                     |                   | tell             | though              |                      | clubs      |                  | i'm           |              | revise            |         |      |       |
|                     |                   | your             | thought             |                      | down       |                  | is            |              | revision          |         |      |       |
|                     |                   | family           | try                 |                      | education  |                  | keep          |              | school            |         |      |       |
|                     |                   | father           | trying              |                      | efficient  |                  | keeps         |              | study             |         |      |       |
|                     |                   | mother           | understand          |                      | effort     |                  | leave         |              | studying          |         |      |       |
|                     |                   | parents          | use                 |                      | famous     |                  | now           |              | university        |         |      |       |
|                     |                   | friend           | used                |                      | first      |                  | pass          |              |                   |         |      |       |
|                     |                   | friends          | usually             |                      | gain       |                  | sells         |              |                   |         |      |       |
|                     |                   | female           | want                |                      | get        |                  | spend         |              |                   |         |      |       |
|                     |                   | male             | wanted              |                      | goals      |                  | that's        |              |                   |         |      |       |
|                     |                   |                  | wants               |                      | got        |                  | what's        |              |                   |         |      |       |
|                     |                   |                  | why                 |                      | high       |                  | write         |              |                   |         |      |       |
|                     |                   |                  | without             |                      | law        |                  |               |              |                   |         |      |       |
|                     |                   |                  | would               |                      | lawyer     |                  |               |              |                   |         |      |       |
|                     |                   |                  | distractions        |                      | management |                  |               |              |                   |         |      |       |
|                     |                   |                  | attention           |                      | quit       |                  |               |              |                   |         |      |       |
|                     |                   |                  | become              |                      | strategies |                  |               |              |                   |         |      |       |
|                     |                   |                  | believe             |                      | student    |                  |               |              |                   |         |      |       |
|                     |                   |                  | choose              |                      | students   |                  |               |              |                   |         |      |       |
|                     |                   |                  | conscious           |                      | take       |                  |               |              |                   |         |      |       |
|                     |                   |                  | curious             |                      | teach      |                  |               |              |                   |         |      |       |
|                     |                   |                  |                     |                      | teacher    |                  |               |              |                   |         |      |       |
|                     |                   |                  |                     |                      | tried      |                  |               |              |                   |         |      |       |
|                     |                   |                  |                     |                      | tries      |                  |               |              |                   |         |      |       |

## APPENDIX V: The Full List of the Words Included under Each Category for Current-repeat Group

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives      | Time Orientation |               |                  | Personal Concerns |           |        |        |
|---------------------|-------------------|------------------|---------------------|----------------------|-------------|------------------|---------------|------------------|-------------------|-----------|--------|--------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |             | Focus past       | Focus present | Focus future     | work              | leisure   | home   | money  |
| active              | bad               | blame            | explains            | see                  | try         | lost             | lose          | plan             | practice          | books     | family | pay    |
| best                | blame             | love             | informed            | looks                | problems    | said             | lack          | may expecte<br>d | work              | book      | dorm   | spend  |
| better              | boring            | loves            | problem             | feel                 | problem     | looked           | take          |                  | write             | family    | home   | owe    |
| calm                | broke             | advised          | problems            | listening            | lack        | watched          | get           | will             | learn             | music     |        | bought |
| certain             | difficult         | anyone           | certain             | experience           | up          | wasn't           | gets          | then             | studied           | videos    |        | greedy |
| challenges          | difficulty        | ask              | create              | look                 | failed      | needed           | try           | going            | wrote             | tv        |        |        |
| cheerful            | emotional         | asked            | sure                | looked               | bad         | happened         | practice      | future           | failed            | relaxed   |        |        |
| create              | failed            | boyfriend        | affects             | speaking             | ambitious   | used             | work          |                  | failing           | exercises |        |        |
| easy                | failing           | company          | attention           | music                | improve     | had              | tries         |                  | failure           | sports    |        |        |
| good                | failure           | consult          | attribute           | watched              | good        | broke            | loves         |                  | successful        | cinema    |        |        |
| great               | fault             | everything       | aware               | said                 | successful  | became           | feel          |                  | success           | youtube   |        |        |
| happier             | greedy            | explain          | based               | show                 | failing     | did              | listen        |                  | achieve           |           |        |        |
| like                | guilty            | explains         | allow               | listen               | boyfriend   | studied          | speak         |                  | achievement       |           |        |        |
| important           | lose              | family           | became              | red                  | first       | passed           | say           |                  | ambitious         |           |        |        |
| improve             | lost              | father           | create              | speak                | teacher     | were             | see           |                  | ambitions         |           |        |        |
| improved            | nervous           | friend           | affects             | sees                 | we          | decided          | looks         |                  | teacher           |           |        |        |
| intelligence        | problem           | friends          | allow               | say                  | practice    | was              | look          |                  | teachers          |           |        |        |
| joyful              | problems          | gave             | attribute           | hard                 | getting     | wrote            | sees          |                  | management        |           |        |        |
| love                | stress            | give             | based               | looking              | able        | been             | watch         |                  | manage            |           |        |        |
| loves               | stressed          | gives            | change              | watch                | proficiency | went             | can't         |                  | law               |           |        |        |
| loyal               | unsuccessful      | he               | depends             | videos               | opportunity | already          | cannot        |                  | teach             |           |        |        |
| opportunity         | upset             | help             | forced              | watched              | skills      | understood       | seems         |                  | skills            |           |        |        |
| relaxed             |                   | him              |                     | red                  | greedy      | bought           | seem          |                  | motivate          |           |        |        |

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives      | Time Orientation |               |              | Personal Concerns |         |      |       |
|---------------------|-------------------|------------------|---------------------|----------------------|-------------|------------------|---------------|--------------|-------------------|---------|------|-------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |             | Focus past       | Focus present | Focus future | work              | leisure | home | money |
| strong              |                   | informed         | influence           | sees                 | help        | entered          | want          |              | challenges        |         |      |       |
| success             |                   | kids             | make                | looking              | success     | started          | need          |              | motivation        |         |      |       |
| successful          |                   | language         | making              | watch                | order       | remember         | gives         |              | motivated         |         |      |       |
| sure                |                   | listen           | effective           | videos               | achieve     | gave             | is            |              | associate         |         |      |       |
| to like             |                   | listening        | effects             | listening            | fault       | past             | ask           |              | hardwork          |         |      |       |
| vital               |                   | ma               | explicit            | speaking             | friends     | asked            | think         |              | department        |         |      |       |
| well                |                   | mom              | feel                | music                | motivates   | woke             | does          |              | lesson            |         |      |       |
| would like          |                   | mother           | forced              | said                 | teachers    | fell             | make          |              | exam              |         |      |       |
|                     |                   | parents          | how                 | listen               | strong      |                  | don't         |              | pay               |         |      |       |
|                     |                   | people           | imagine             | speak                | strategy    |                  | talk          |              | course            |         |      |       |
|                     |                   | person           | infer               | say                  | take        |                  | to like       |              | class             |         |      |       |
|                     |                   | private          | influence           | feel                 | management  |                  | go            |              | test              |         |      |       |
|                     |                   | role             | kind of             | hard                 | manage      |                  | use           |              | study             |         |      |       |
|                     |                   | said             | know                |                      | law         |                  | do            |              | exams             |         |      |       |
|                     |                   | say              | lack                |                      | lost        |                  | be            |              | developed         |         |      |       |
|                     |                   | she              | learn               |                      | loves       |                  | can           |              | associated        |         |      |       |
|                     |                   | someone          | learners            |                      | family      |                  | infer         |              | lectures          |         |      |       |
|                     |                   | speak            | learning            |                      | influence   |                  | forget        |              | school            |         |      |       |
|                     |                   | speaking         | lesson              |                      | achievement |                  | now           |              | studying          |         |      |       |
|                     |                   | stories          | lessons             |                      | influential |                  | am            |              | university        |         |      |       |
|                     |                   | talk             | links               |                      | love        |                  | pass          |              | workshops         |         |      |       |
|                     |                   | tell             | explains            |                      | work        |                  | have          |              | qualified         |         |      |       |
|                     |                   | telling          | informed            |                      | motivate    |                  | write         |              | books             |         |      |       |
|                     |                   | them             | attention           |                      | important   |                  | know          |              | learners          |         |      |       |
|                     |                   | they             | aware               |                      | forced      |                  | give          |              | writing           |         |      |       |

| Affective Processes |                   | Social Processes | Cognitive Processes | Perceptual Processes | Drives       | Time Oreintation |               |              | Personal Concerns |         |      |       |
|---------------------|-------------------|------------------|---------------------|----------------------|--------------|------------------|---------------|--------------|-------------------|---------|------|-------|
| Positive Emotions   | Negative Emotions |                  |                     |                      |              | Focus past       | Focus present | Focus future | work              | leisure | home | money |
|                     |                   | we               | decided             |                      | improved     |                  | are           |              | research          |         |      |       |
|                     |                   | who              | effective           |                      | planned      |                  | eat           |              | learning          |         |      |       |
|                     |                   | you              | effects             |                      | plan         |                  | tell          |              | company           |         |      |       |
|                     |                   | family           | feel                |                      | high         |                  | learn         |              | consult           |         |      |       |
|                     |                   | father           | imagine             |                      | upper        |                  | has           |              | lessons           |         |      |       |
|                     |                   | mom              | infer               |                      | difficult    |                  | explains      |              | hardwork          |         |      |       |
|                     |                   | mother           | know                |                      | get          |                  | explain       |              | dormitor          |         |      |       |
|                     |                   | parents          | lesson              |                      | demanding    |                  | come          |              | book              |         |      |       |
|                     |                   | uncle            | lessons             |                      | parents      |                  | owe           |              | responsible       |         |      |       |
|                     |                   | boyfriend        | links               |                      | challenges   |                  | doesn't       |              | pen               |         |      |       |
|                     |                   | friend           | means               |                      | tries        |                  | means         |              | graduate          |         |      |       |
|                     |                   | male             | memorize            |                      | gets         |                  | open          |              | job               |         |      |       |
|                     |                   | female           | memory              |                      | associate    |                  |               |              | advised           |         |      |       |
|                     |                   | her              | motivate            |                      | difficulty   |                  |               |              |                   |         |      |       |
|                     |                   | she              | motivated           |                      | beg          |                  |               |              |                   |         |      |       |
|                     |                   |                  | motivates           |                      | best         |                  |               |              |                   |         |      |       |
|                     |                   |                  | motivation          |                      | friend       |                  |               |              |                   |         |      |       |
|                     |                   |                  | questions           |                      | loyal        |                  |               |              |                   |         |      |       |
|                     |                   |                  | remember            |                      | teach        |                  |               |              |                   |         |      |       |
|                     |                   |                  | seem                |                      | lose         |                  |               |              |                   |         |      |       |
|                     |                   |                  | seems               |                      | prestigious  |                  |               |              |                   |         |      |       |
|                     |                   |                  | think               |                      | allow        |                  |               |              |                   |         |      |       |
|                     |                   |                  | unaware             |                      | better       |                  |               |              |                   |         |      |       |
|                     |                   |                  | understand          |                      | failure      |                  |               |              |                   |         |      |       |
|                     |                   |                  | understood          |                      | great        |                  |               |              |                   |         |      |       |
|                     |                   |                  | effective           |                      | unsuccessful |                  |               |              |                   |         |      |       |
|                     |                   |                  | effects             |                      | motivation   |                  |               |              |                   |         |      |       |
|                     |                   |                  | infer               |                      | motivated    |                  |               |              |                   |         |      |       |
|                     |                   |                  | complicated         |                      | down         |                  |               |              |                   |         |      |       |
|                     |                   |                  |                     |                      | create       |                  |               |              |                   |         |      |       |



## APPENDIX W: Interaction Terms for Effort Regulation

Table 17a

Hierarchical regression for effort regulation for the full sample, and the three subgroups with the inclusion of interaction terms

| Predictors                     | Effort Regulation             |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
|--------------------------------|-------------------------------|---------------|-------|---------------------------------|---------------|-------|----------------------------------|---------------|-------|-------------------------------------|---------------|-------|
|                                | Full sample ( <i>N</i> = 989) |               |       | Non-repeaters ( <i>n</i> = 328) |               |       | Past-repeaters ( <i>n</i> = 441) |               |       | Current-repeaters ( <i>n</i> = 215) |               |       |
|                                | <i>B</i>                      | ( <i>SE</i> ) | β     | <i>B</i>                        | ( <i>SE</i> ) | β     | <i>B</i>                         | ( <i>SE</i> ) | β     | <i>B</i>                            | ( <i>SE</i> ) | β     |
| <i>Step 1</i>                  |                               |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
| 1. Gender                      | 0.08                          | (0.05)        | .03   | 0.11                            | (0.15)        | .04   | 0.10                             | (0.12)        | .04   | 0.02                                | (0.16)        | .00   |
| 2. Utility value               | 0.21                          | (0.04)        | .19** | 0.23                            | (0.06)        | .19** | 0.23                             | (0.05)        | .23** | 0.14                                | (0.07)        | .13** |
| 3. Self-Efficacy               | 0.29                          | (0.04)        | .24** | 0.31                            | (0.07)        | .25** | 0.23                             | (0.06)        | .19** | 0.40                                | (0.09)        | .33** |
| 4. Value X Efficacy            | 0.03                          | (0.03)        | .04   | 0.04                            | (0.05)        | .04   | 0.04                             | (0.04)        | .05   | 0.03                                | (0.05)        | .04   |
| <i>F</i> change                | <i>F</i> (1,985) = 1.67       |               |       | <i>F</i> (1, 324) = 0.50        |               |       | <i>F</i> (2, 437) = 1.02         |               |       | <i>F</i> (2, 211) = 0.30            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .13                           |               |       | .12                             |               |       | .12                              |               |       | .14                                 |               |       |
| <i>Step 2</i>                  |                               |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
| 1. Gender                      | 0.07                          | (0.08)        | .03   | 0.06                            | (0.14)        | .02   | 0.11                             | (0.12)        | .04   | 0.00                                | (0.16)        | .00   |
| 2. Utility value               | 0.08                          | (0.04)        | .07*  | 0.08                            | (0.07)        | .06   | 0.10                             | (0.06)        | .10   | 0.02                                | (0.08)        | .02   |
| 3. Self-Efficacy               | 0.19                          | (0.04)        | .15** | 0.24                            | (0.07)        | .18** | 0.12                             | (0.06)        | .10   | 0.30                                | (0.09)        | .25** |
| 4. Value X Efficacy            | 0.03                          | (0.03)        | .04   | 0.02                            | (0.05)        | .02   | 0.04                             | (0.04)        | .04   | 0.03                                | (0.05)        | .04   |
| 5. Intrinsic reasons           | 0.29                          | (0.04)        | .25** | 0.26                            | (0.08)        | .22** | 0.31                             | (0.06)        | .28** | 0.29                                | (0.09)        | .25** |
| 6. Self-worth concerns         | 0.04                          | (0.02)        | .07*  | 0.10                            | (0.04)        | .14** | 0.03                             | (0.03)        | .04   | -0.01                               | (0.04)        | -.01  |
| 7. Intrinsic X Worth           | -0.03                         | (0.02)        | -.06  | -0.05                           | (0.03)        | -.09  | -0.02                            | (0.02)        | -.05  | -0.01                               | (0.04)        | -.03  |
| <i>F</i> change                | <i>F</i> (1,982) = 3.35       |               |       | <i>F</i> (1, 321) = 3.04        |               |       | <i>F</i> (1, 434) = 1.14         |               |       | <i>F</i> (1, 208) = 0.14            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .17                           |               |       | .18                             |               |       | .16                              |               |       | .16                                 |               |       |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

## APPENDIX X: Interaction Terms for Rehearsal

Table 18a

Hierarchical regression for rehearsal for the full sample, and the three subgroups with the inclusion of interaction terms

| Predictors                     | Rehearsal                     |               |       |                                 |               |          |                                  |               |        |                                     |               |       |
|--------------------------------|-------------------------------|---------------|-------|---------------------------------|---------------|----------|----------------------------------|---------------|--------|-------------------------------------|---------------|-------|
|                                | Full sample ( <i>N</i> = 989) |               |       | Non-repeaters ( <i>n</i> = 328) |               |          | Past-repeaters ( <i>n</i> = 441) |               |        | Current-repeaters ( <i>n</i> = 215) |               |       |
|                                | <i>B</i>                      | ( <i>SE</i> ) | β     | <i>B</i>                        | ( <i>SE</i> ) | <i>B</i> | <i>B</i>                         | ( <i>SE</i> ) | β      | <i>B</i>                            | ( <i>SE</i> ) | β     |
| <i>Step 1</i>                  |                               |               |       |                                 |               |          |                                  |               |        |                                     |               |       |
| 1. Gender                      | -0.06                         | (0.08)        | -.02  | 0.02                            | (0.15)        | .01      | -0.29                            | (0.12)        | -.10*  | 0.04                                | (0.18)        | .02   |
| 2. Utility value               | 0.30                          | (0.04)        | .26** | 0.27                            | (0.06)        | .23**    | 0.32                             | (0.05)        | .28**  | 0.24                                | (0.09)        | .21** |
| 3. Self-Efficacy               | 0.27                          | (0.04)        | .21** | 0.24                            | (0.07)        | .19**    | 0.30                             | (0.06)        | .22**  | 0.26                                | (0.10)        | .20** |
| 4. Value X Efficacy            | 0.01                          | (0.03)        | .01   | 0.05                            | (0.05)        | .05      | 0.01                             | (0.04)        | .01    | -0.04                               | (0.06)        | -.05  |
| <i>F</i> change                | <i>F</i> (1, 984) = 0.22      |               |       | <i>F</i> (1, 323) = 1.03        |               |          | <i>F</i> (1, 437) = 0.07         |               |        | <i>F</i> (1, 211) = 0.61            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .15                           |               |       | .11                             |               |          | .19                              |               |        | .11                                 |               |       |
| <i>Step 2</i>                  |                               |               |       |                                 |               |          |                                  |               |        |                                     |               |       |
| 1. Gender                      | -0.10                         | (0.08)        | -.04  | -0.01                           | (0.14)        | .00      | -0.31                            | (0.11)        | -.11** | 0.03                                | (0.16)        | .01   |
| 2. Utility value               | 0.13                          | (0.04)        | .11** | 0.14                            | (0.07)        | .12*     | 0.12                             | (0.06)        | .10*   | 0.09                                | (0.08)        | .08   |
| 3. Self-Efficacy               | 0.15                          | (0.04)        | .11** | 0.20                            | (0.07)        | .16**    | 0.13                             | (0.06)        | .10*   | 0.12                                | (0.09)        | .10   |
| 4. Value X Efficacy            | 0.01                          | (0.03)        | .02   | 0.04                            | (0.05)        | .04      | 0.01                             | (0.04)        | .02    | -0.03                               | (0.05)        | -.03  |
| 5. Intrinsic reasons           | 0.29                          | (0.04)        | .24** | 0.13                            | (0.07)        | .11      | 0.39                             | (0.06)        | .33**  | 0.34                                | (0.09)        | .27** |
| 6. Self-worth concerns         | 0.18                          | (0.02)        | .26** | 0.21                            | (0.03)        | .31**    | 0.17                             | (0.03)        | .24**  | 0.12                                | (0.04)        | .17*  |
| 7. Intrinsic X Worth           | -0.03                         | (0.02)        | -.05  | -0.03                           | (0.03)        | -.06     | -0.05                            | (0.02)        | -.08*  | -0.02                               | (0.04)        | -.03  |
| <i>F</i> change                | <i>F</i> (1, 981) = 3.36      |               |       | <i>F</i> (1, 320) = 1.31        |               |          | <i>F</i> (1, 434) = 4.16*        |               |        | <i>F</i> (2, 208) = 0.17            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .26                           |               |       | .22                             |               |          | .32                              |               |        | .18                                 |               |       |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

## APPENDIX Y: Interaction Terms for Critical Thinking

Table 19a

Hierarchical regression for critical thinking for the full sample, and the three subgroups with the inclusion of interaction terms

| Predictors                     | Critical thinking             |               |          |                                 |               |          |                                  |               |       |                                     |               |       |
|--------------------------------|-------------------------------|---------------|----------|---------------------------------|---------------|----------|----------------------------------|---------------|-------|-------------------------------------|---------------|-------|
|                                | Full sample ( <i>N</i> = 989) |               |          | Non-repeaters ( <i>n</i> = 328) |               |          | Past-repeaters ( <i>n</i> = 441) |               |       | Current-repeaters ( <i>n</i> = 215) |               |       |
|                                | <i>B</i>                      | ( <i>SE</i> ) | <i>B</i> | <i>B</i>                        | ( <i>SE</i> ) | <i>B</i> | <i>B</i>                         | ( <i>SE</i> ) | β     | <i>B</i>                            | ( <i>SE</i> ) | β     |
| <i>Step 1</i>                  |                               |               |          |                                 |               |          |                                  |               |       |                                     |               |       |
| 1. Gender                      | -0.02                         | (0.08)        | -.01     | 0.10                            | (0.14)        | .04      | -0.18                            | (0.12)        | -.07  | 0.20                                | (0.17)        | .07   |
| 2. Utility value               | 0.22                          | (0.04)        | .20**    | 0.14                            | (0.06)        | .13*     | 0.24                             | (0.05)        | .23** | 0.27                                | (0.08)        | .25** |
| 3. Self-Efficacy               | 0.30                          | (0.04)        | .25**    | 0.25                            | (0.07)        | .22**    | 0.33                             | (0.06)        | .26** | 0.30                                | (0.09)        | .24** |
| 4. Value X Efficacy            | 0.04                          | (0.03)        | .05      | 0.07                            | (0.05)        | .08      | 0.09                             | (0.04)        | .10   | -0.06                               | (0.05)        | -.08  |
| <i>F</i> change                | <i>F</i> (1,985) = 2.25       |               |          | <i>F</i> (2, 323 ) = 1.96       |               |          | <i>F</i> (1, 437) = 4.99         |               |       | <i>F</i> (2, 210) = 1.57            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .14                           |               |          | .08                             |               |          | .17                              |               |       | .18                                 |               |       |
| <i>Step 2</i>                  |                               |               |          |                                 |               |          |                                  |               |       |                                     |               |       |
| 1. Gender                      | -0.04                         | (0.07)        | -.01     | 0.05                            | (0.13)        | .02      | -0.15                            | (0.11)        | -.06  | 0.16                                | (0.16)        | .06   |
| 2. Utility value               | 0.03                          | (0.04)        | .03      | -0.03                           | (0.07)        | -.03     | 0.04                             | (0.05)        | .03   | 0.11                                | (0.08)        | .10   |
| 3. Self-Efficacy               | 0.14                          | (0.04)        | .12**    | 0.12                            | (0.07)        | .10      | 0.13                             | (0.06)        | .11*  | 0.17                                | (0.09)        | .14*  |
| 4. Value X Efficacy            | 0.03                          | (0.03)        | .03      | 0.04                            | (0.05)        | .05      | 0.08                             | (0.04)        | .09   | -0.06                               | (0.05)        | -.07  |
| 5. Intrinsic reasons           | 0.46                          | (0.04)        | .41**    | 0.40                            | (0.07)        | .37**    | 0.52                             | (0.06)        | .47** | 0.40                                | (0.09)        | .33** |
| 6. Self-worth concerns         | -0.02                         | (0.02)        | -.04     | -0.02                           | (0.03)        | -.03     | -0.02                            | (0.03)        | -.03  | -0.03                               | (0.04)        | -.05  |
| 7. Intrinsic X Worth           | -0.03                         | (0.02)        | -.07*    | -0.04                           | (0.03)        | -.09     | -0.02                            | (0.02)        | -.04  | -0.05                               | (0.04)        | -.10  |
| <i>F</i> change                | <i>F</i> (1,982) = 5.31*      |               |          | <i>F</i> (1, 321) = 2.78        |               |          | <i>F</i> (1, 434) = 0.96         |               |       | <i>F</i> (1, 208) = 2.29            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .25                           |               |          | .18                             |               |          | .30                              |               |       | .24                                 |               |       |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

## APPENDIX Z: Interaction Terms for Meta-cognitive self-regulation

Table 20a

Hierarchical regression for meta-cognitive self-regulation for the full sample, and the three subgroups with the inclusion of interaction terms

| Predictors                     | Meta-cognitive self-regulation |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
|--------------------------------|--------------------------------|---------------|-------|---------------------------------|---------------|-------|----------------------------------|---------------|-------|-------------------------------------|---------------|-------|
|                                | Full sample ( <i>N</i> = 989)  |               |       | Non-repeaters ( <i>n</i> = 328) |               |       | Past-repeaters ( <i>n</i> = 441) |               |       | Current-repeaters ( <i>n</i> = 215) |               |       |
|                                | <i>B</i>                       | ( <i>SE</i> ) | β     | <i>B</i>                        | ( <i>SE</i> ) | β     | <i>B</i>                         | ( <i>SE</i> ) | β     | <i>B</i>                            | ( <i>SE</i> ) | β     |
| <i>Step 1</i>                  |                                |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
| 1. Gender                      | -0.01                          | (0.05)        | -.01  | 0.08                            | (0.10)        | .04   | -0.09                            | (0.08)        | -.05  | 0.00                                | (0.11)        | .00   |
| 2. Utility value               | 0.24                           | (0.02)        | .30** | 0.21                            | (0.04)        | .25** | 0.26                             | (0.04)        | .34** | 0.24                                | (0.05)        | .31** |
| 3. Self-Efficacy               | 0.26                           | (0.03)        | .29** | 0.27                            | (0.05)        | .30** | 0.24                             | (0.04)        | .26** | 0.27                                | (0.06)        | .31** |
| 4. Value X Efficacy            | 0.02                           | (0.02)        | .03   | 0.04                            | (0.04)        | .01   | 0.05                             | (0.03)        | .08   | -0.02                               | (0.04)        | -.03  |
| <i>F</i> change                | <i>F</i> (1, 987) = 1.26       |               |       | <i>F</i> (1, 325) = 0.01        |               |       | <i>F</i> (1, 437) = 3.29         |               |       | <i>F</i> (2, 212) = 0.25            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .23                            |               |       | .19                             |               |       | .25                              |               |       | .25                                 |               |       |
| <i>Step 2</i>                  |                                |               |       |                                 |               |       |                                  |               |       |                                     |               |       |
| 1. Gender                      | -0.03                          | (0.05)        | -.02  | 0.04                            | (0.10)        | .02   | -0.09                            | (0.07)        | -.04  | -0.03                               | (0.10)        | -.02  |
| 2. Utility value               | 0.08                           | (0.03)        | .10** | 0.06                            | (0.05)        | .07   | 0.08                             | (0.04)        | .11*  | 0.08                                | (0.05)        | .11   |
| 3. Self-Efficacy               | 0.13                           | (0.03)        | .15** | 0.17                            | (0.05)        | .19   | 0.09                             | (0.04)        | .10*  | 0.15                                | (0.06)        | .17*  |
| 4. Value X Efficacy            | 0.01                           | (0.02)        | .03   | -0.02                           | (0.03)        | -.02  | 0.05                             | (0.02)        | .07*  | -0.01                               | (0.03)        | -.01  |
| 5. Intrinsic reasons           | 0.35                           | (0.03)        | .42** | 0.30                            | (0.05)        | .36** | 0.38                             | (0.04)        | .46** | 0.37                                | (0.06)        | .43** |
| 6. Self-worth concerns         | 0.06                           | (0.01)        | .12** | 0.06                            | (0.02)        | .11** | 0.08                             | (0.02)        | .17** | 0.01                                | (0.03)        | .01   |
| 7. Intrinsic X Worth           | -0.03                          | (0.01)        | -.07* | -0.03                           | (0.02)        | -.09  | -0.02                            | (0.01)        | -.06  | -0.04                               | (0.02)        | -.10  |
| <i>F</i> change                | <i>F</i> (1, 984) = 7.12**     |               |       | <i>F</i> (1, 322) = 3.31        |               |       | <i>F</i> (1, 434) = 2.48         |               |       | <i>F</i> (2, 209) = 3.14            |               |       |
| Adjusted <i>R</i> <sup>2</sup> | .37                            |               |       | .30                             |               |       | .41                              |               |       | .36                                 |               |       |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

## APPENDIX AA: Interaction Terms for Test Anxiety

Table 21a

Hierarchical regression for test anxiety for the full sample, and the three subgroups with the inclusion of interaction terms

| Predictors                     | Test anxiety                  |               |        |                                 |               |        |                                  |               |        |                                     |               |        |
|--------------------------------|-------------------------------|---------------|--------|---------------------------------|---------------|--------|----------------------------------|---------------|--------|-------------------------------------|---------------|--------|
|                                | Full sample ( <i>N</i> = 989) |               |        | Non-repeaters ( <i>n</i> = 328) |               |        | Past-repeaters ( <i>n</i> = 441) |               |        | Current-repeaters ( <i>n</i> = 215) |               |        |
|                                | <i>B</i>                      | ( <i>SE</i> ) | β      | <i>B</i>                        | ( <i>SE</i> ) | β      | <i>B</i>                         | ( <i>SE</i> ) | β      | <i>B</i>                            | ( <i>SE</i> ) | β      |
| <i>Step 1</i>                  |                               |               |        |                                 |               |        |                                  |               |        |                                     |               |        |
| 1. Gender                      | 0.00                          | (0.08)        | .00    | 0.06                            | (0.15)        | .02    | -0.17                            | (0.13)        | -.06   | -0.08                               | (0.19)        | -.03   |
| 2. Utility value               | 0.24                          | (0.04)        | .21**  | 0.26                            | (0.06)        | .22**  | 0.25                             | (0.06)        | .23**  | 0.13                                | (0.08)        | .12    |
| 3. Self-Efficacy               | -0.41                         | (0.04)        | -.32** | -0.51                           | (0.07)        | -.41** | -0.40                            | (0.07)        | -.31** | -0.28                               | (0.10)        | -.21** |
| 4. Value X Efficacy            | -0.03                         | (0.03)        | -.04   | -0.08                           | (0.05)        | -.07   | 0.01                             | (0.04)        | .01    | -0.09                               | (0.06)        | -.11   |
| <i>F</i> change                | <i>F</i> (1, 991) = 1.45      |               |        | <i>F</i> (1, 327) = 2.08        |               |        | <i>F</i> (1, 438) = 1.07         |               |        | <i>F</i> (2, 213) = 2.25            |               |        |
| Adjusted <i>R</i> <sup>2</sup> | .01                           |               |        | .15                             |               |        | .09                              |               |        | .02                                 |               |        |
| <i>Step 2</i>                  |                               |               |        |                                 |               |        |                                  |               |        |                                     |               |        |
| 1. Gender                      | -0.04                         | (0.08)        | -.01   | 0.07                            | (0.13)        | .03    | -0.21                            | (0.11)        | -.08   | -0.08                               | (0.18)        | -.03   |
| 2. Utility value               | 0.15                          | (0.04)        | .13**  | 0.20                            | (0.07)        | .17**  | 0.14                             | (0.05)        | .13*   | 0.03                                | (0.09)        | .03    |
| 3. Self-Efficacy               | -0.46                         | (0.04)        | -.35** | -0.49                           | (0.07)        | -.39** | -0.46                            | (0.06)        | -.36** | -0.39                               | (0.10)        | -.30   |
| 4. Value X Efficacy            | -0.03                         | (0.03)        | -.03   | -0.08                           | (0.05)        | -.08   | 0.02                             | (0.04)        | .02    | -0.05                               | (0.06)        | -.06   |
| 5. Intrinsic reasons           | 0.06                          | (0.04)        | .05    | -0.04                           | (0.07)        | -.03   | 0.11                             | (0.06)        | .10    | 0.16                                | (0.10)        | .13    |
| 6. Self-worth concerns         | 0.26                          | (0.02)        | .37**  | 0.27                            | (0.03)        | .40**  | 0.24                             | (0.03)        | .34**  | 0.23                                | (0.05)        | .31    |
| 7. Intrinsic X Worth           | 0.00                          | (0.02)        | .01    | 0.03                            | (0.03)        | .05    | 0.00                             | (0.02)        | -.01   | -0.05                               | (0.04)        | -.09   |
| <i>F</i> change                | <i>F</i> (2, 988) = 0.08      |               |        | <i>F</i> (1,324) = 1.16         |               |        | <i>F</i> (1, 435) = 0.02         |               |        | <i>F</i> (2, 210) = 0.81            |               |        |
| Adjusted <i>R</i> <sup>2</sup> | .22                           |               |        | .29                             |               |        | .20                              |               |        | .14                                 |               |        |

Note. \*  $p < .05$ . \*\*  $p < .01$ . Gender was dummy-coded as 0 = female; 1 = male. Non-, Past- and Current-repeaters: Students who respectively, have never failed, failed in a past, and failed in the current course level.

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## **Presentations Given at Conferences**

A. Alpman, A. Oğuz, “The Words Are Sleeping In Bed. Let’s Wake Them Up”, in the Proceedings of the 9th International Bilkent University School of English Language ELT Conference on Challenge In Learning: Helping Learners Realise Their Full Potential, Ankara, Turkey, 4-6 March 2004; INGED Conference on One Step Further, İzmir Economy University, İzmir, Turkey, 3-5 September 2004.

P. Lyons, A. Üner, “Standards, Standardization and Customization,” 10th International Bilkent University School of English Language ELT Conference “The Future of ELT: A Quest for Common Standards and Approaches,” Bilkent University, Ankara, 27-29 June 2007

A.Üner, “Working Memory: Work in Memory,” 13th International Bilkent University School of English Language ELT Conference “Teachers Exploring Practice For Professional Learning” Bilkent University, Ankara, 17-18 June 2013