A Translation and Cross-Cultural Validation of the Academic Success Inventory for College Students

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A TRANSLATION AND CROSS-CULTURAL VALIDATION OF
THE ACADEMIC SUCCESS INVENTORY FOR COLLEGE STUDENTS

By

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I dedicate this dissertation to my husband, Tae Hoon Lee, M.D.,
and my children, Esther Yeseo Lee and John Yejoon Lee.
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The present study aimed to translate the *Academic Success Inventory for College Students* (ASICS; Prevatt et al., 2011), which was originally developed in an English speaking Western culture in the United States, into the Korean language and to test the cross-cultural validation of the Korean version of the ASICS with a sample of Korean college students. This translation and adaptation of the Korean language version of the ASICS is intended to be used to in cross-cultural research to enhance our understanding of academic success in Korean college student and to improve cross-cultural measurement generalizability in the area of academic success in college students. The present study strictly followed prescribed and validated translation procedures suggested by researchers to translate the original ASICS into Korean language (Brislin, 1970; Chapman & Carter, 1979; Geisinger, 1994; Hambleton, 2001). Given both the current lack of effective measurements of academic success in college students and the limited existing information regarding these measurements in non-Western cultures, the present study makes a significant contribution to research in the area of cross-cultural measurement of academic success in college students. Data analyses of the present study were conducted in order to find empirical evidence for the reliability and four validities such as criterion, convergent, discriminant, and factorial validities of the Korean translated version of the ASICS with a South Korean sample. The Korean ASICS’s reliability was calculated by internal consistency (e.g., a coefficient alpha value) and compared to the Cronbach’s alpha reliability from a U.S. sample. The criterion validity of the Korean ASICS was conducted by a normal test of correlations between students’ subscale scores of the ASICS and their overall grade point averages. The convergent validity was conducted by a normal test of correlations between students’ subscale scores on the *Motivated Strategies for Learning Questionnaire* (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991). The discriminant validity was examined by using a multivariate analysis of variance (MANOVA) for comparison between high performing students and low performing students among Korean college students. Finally, the factorial validity was tested by conducting a confirmatory factor analysis to investigate the consistency of the factor structure of the Korean ASICS with that of the original English version of the ASICS.
In result, the ten Korean ASICS subscales were found to possess an excellent overall internal consistency of .91. Correlational analysis between the ten scale scores of the Korean ASICS and cumulative GPA of the Korean sample were conducted and eight subscales were positive and showed statistically significant correlations with GPA at a level of .01, thus supporting criterion validity in predicting GPA with a Korean sample. As hypothesized, there appears to be strong evidence that ASICS and MSLQ questionnaires converge to measure constructs of academic success and motivation. The results of a multivariate analysis of variance (MANOVA) to investigate differences in the ten mean scale scores between the high performing and the low performing groups showed statistically significant on seven out of the ten Korean ASICS subscales. In terms of factor structure of the ASICS with a Korean sample, the results of the confirmatory factor analysis of the ten-factor model of the Korean ASICS fit best. The findings of the present study may provide a preliminary reference for the first use of a translated version of the ASICS as a potential prescreening tool for at-risk college students in South Korea. Findings need to be carefully interpreted when gathered from local populations in Korea.
CHAPTER ONE

INTRODUCTION

This chapter provides an introduction to this study, which is a translation and a cross-cultural validation of the Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011). In this chapter, the current problems of the measurement of academic success in college students are mentioned. The purpose of this present study and research questions are also described.

The Statement of the Problem

The identification of predictive variables of academic success in college students has been an increasingly significant social, professional, and cross-cultural concern among researchers, administrators, educators, and college service providers (Cokley & Moore, 2007; Graunke & Woosley, 2005; Yan & Gaier, 1994). Porter (1989) reported that approximately 40% of college students in the U.S. dropped out without earning their bachelor’s degree from post-secondary institution and that only 15% of college students finished a Bachelor’s degree within the standard four years. Unfortunately, over two decades, college student’s retention rate has not been improved in spite of negative consequences due to their dropout without obtaining their degree (Newby, 2002; Porter, 1989). The impact of dropping out from college without earning a degree are considerable both for individuals and for the higher education system in the United States (Kane & Rouse, 1995). Not only in the U.S., but also in South Korea, the college students who dropped out before completion of their degree influence their level of salary in comparison with whom earned their college degree (S. Y. Kim, 2007). Students that leave before degree completion earn less than half as much as college graduates (DesJardins, Ahlburg, & McCall, 2002). In addition, college dropouts cost their institution considerable amount of dollars, which might be economically harmful (DeBerard, Spielmans, & Julka, 2004).

Despite efforts to develop multiple measures of academic success over more than three decades of research (Pascarella & Terenzini, 2005; Robbins, Allen, Casillas, Peterson, & Le, 2006; Sagie, Elizur, & Yamauchi, 1996), these scales have not been established on precise definitions of academic success. Regardless of limitations, academic success in college is
commonly measured by two standards: grade point average (GPA) and students’ persistence as indicated by college graduation rate (Astin, 1993; Graunke & Woosley, 2005; Robbins et al., 2004). Researchers have commonly reported predictions of college students’ academic performance from two variables such as high school GPA and a student’s ability as demonstrated through standardized scores such as SAT or ACT (Harackiewicz, Barron, Tauer, & Elliot, 2002; Rothstein, 2004; Zwick & Sklar, 2005). Some researchers indicate that student’s prior academic performance or standardized test scores do not clearly predict students’ academic success in college due to many confounding variables (Pritchard & Wilson, 2004; Robbins et al., 2004).

Wolfe and Johnson (1995) mentioned that only 19% of students’ college GPAs were predicted by high school performance. In addition, only 25% of college GPAs were predicted by the combination of high school GPAs and students’ SAT scores (Wolfe & Johnson, 1995). Therefore, in order to predict students’ academic potential and success, it is necessary to take into account other broader and non-intellectual variables of college adjustment or success such as social (e.g., Greek letter organizations) (Graunke & Woosley, 2005; Pritchard & Wilson, 2004), motivational (Harackiewicz, Barron, Tauer, & Elliot, 2002; Linnenbrink & Pintrich, 2002a), emotional and psychological (e.g., stress, fatigue, perfectionism, depression, and anxiety) (DeBerard, Spielmans, & Julka, 2004; Fazio & Palm, 1998; Gerdes & Mallinckrodt, 1994; Pritchard & Wilson, 2004; Weiner, 1985), personality (Kaufman, Agars, & Lopez-Wagner, 2008; Tross, Harper, Osher, & Kneidinger, 2000; Wolfe & Johnson, 1995), and interpersonal constructs (Upcraft, 1982). Because these variables are reported to have correlations with each other through embedded mediators and moderators, it is necessary for those who work with college students experiencing academic difficulties to figure out what would be common risk factors which interfere with facilitating academic success.

On the other hand, most research of academic success have been led by Western scholars by developing theory and educational implications of academic success; however, it seemed to be insufficient to generalize the results of these research due to cultural and ethnic differences in between Western and Eastern culture. In terms of cross-cultural perspectives on academic success in college students, researchers has more focused on ethnic differences in attributions of academic success (Covington, 2000; Watkins, 2001). For example, Asian American students who have Chinese, Japanese, and Korean cultural backgrounds, as well as native-born Mexicans,
tend to explain a cause of their academic success by effort (Ho, Salili, Biggs, & Hau, 1999). In contrast, European American students commonly charge their success to fairly valuing their work, effort, and luck at times (Ho, Salili, Biggs, & Hau, 1999). Given the fact that Western cultural values are not equivalent to generalize those in Eastern culture, the research results of academic success in college students in Western culture cannot be generalized in Eastern culture. In addition, only limited information regarding the measurement of academic success in Korean college students is available, making it difficult to address any problems caused by lack of effective measurements of academic success in college students. No known studies have examined the cross-cultural validity of a translated multifaceted instrument designed to screen for academic success in South Korea. Therefore, in order to improve general understanding of college students’ academic success in the context of cross-cultural research including ethnically diverse college student population, the identification of academic success needs to be further explored. Particularly, it would be beneficial for Korean culture to investigate the generalizability of Western findings in the area of college students’ academic performance and their motivation in order to understand variables which impact academic success in college students.

The Purpose of the Study

The purpose of the present study was twofold: First, to translate the Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011) into Korean. Second, to test the cross-cultural validation including reliability and four validities such as criterion, convergent, discriminant, and factorial validities of the Korean translated ASICS with a sample of Korean college students in order to enhance our understanding of cross-cultural measurement generalizability in the area of academic success in college students.

Research Questions

Reliability

1. Do subscale scores on the Korean version of the ASICS reflect evidence of internal consistency reliability?
**Criterion Validity**

1. What are the relationships between students’ grades and the ten Korean ASICS subscales?

**Convergent Validity**

1. What are the relationships between the subscale scores on the Korean version of the ASICS and the MSLQ?

**Discriminant Validity**

1. Do high performing students and low performing students evidence differences on the ten subscales of the Korean ASICS?

**Factorial Validity**

1. What are the relationships among the ten Korean ASICS subscales?
2. Is the ten-factor model solution of the Korean ASICS consistent with the factor structure of the original English version of the ASICS?
CHAPTER TWO
REVIEW OF THE LITERATURE

This chapter presents a general conceptualization and theoretical framework of academic success for the present study. The review of the literature begins that in psychological and educational research how researchers have conceptualized academic success, according to models and theories. A review of the current multiphasic measures of academic success in college students and a cross-cultural consideration of measurements of academic success in South Korea will then be provided.

General Conceptualization of Academic Success in College

Astin’s I-E-O Model

There has been effort by several researchers to study general conceptualization of academic success in college due to not having unanimous consent of the definition of academic success. For almost three decades, the Input-Environment-Outcome (I-E-O) model has been proposed by Astin (1998) in order to understand academic achievement in college students as a general framework. According to this I-E-O model, academic success is not determined by a single component, but determined by the three functional sets of components: inputs, environment, and outcome.

Input. A long history of research on academic success in college (Astin, 1973; Pascarella & Terenzini, 1991) has shown that a student’s outcome can be determined by a number of inputs such as high school GPA and rank, standardized tests scores for college admissions, the number of high school courses taken in different subject matter fields, preliminary choice of a career, reasons for attending college, religious preferences, parental occupation, parental income, parental education, and a variety of demographic measures (i.e., the student’s race or ethnicity, age, gender, marital status, and citizenship) (Astin, 1993).

Environmental Effects. According to Astin (1993), environmental variables can directly and indirectly influence student’s outcome of academic achievement in college. Environmental variables include institutional characteristics (e.g., size and type of institution such as Black
colleges, colleges for women, predominantly men’s colleges, public or private colleges, student-faculty ratio, expenditures for student services, and instructional expenditures), student’s peer group characteristics (e.g., socioeconomic status, values, attitudes and self-concept), faculty characteristics (e.g., favored methods of teaching, morale, values, research orientation of the faculty and student orientation of the faculty), the curriculum (e.g., true core, general education requirements, type of requirements), financial aid (e.g., student loans, work-study, grant or scholarship), freshman major field choice, place of residence (e.g., college dormitory, private room), student involvement (e.g., hours spent studying, number of classes taken in different fields and participation in honors programs), satisfaction with faculty, and quality of instruction.

Outcome. Outcomes of academic success in college students are commonly determined by several measures including simple measures such as grade point average (GPA), graduating with honors, completing a bachelor’s degree, or standardized admission scores such as GRE, LSAT, or MCAT. However, behavioral scientists have noted that the examination of outcome in college students must take into account a broader range of possible outcomes, proposing a variety of outcome measures as follows: Cognitive (i.e., intellective) or non-cognitive (i.e., affective). Cognitive outcomes refer to growth in knowledge and intellectual skills (e.g., general knowledge, critical thinking, problem-solving, and job-related skills). Non-cognitive outcomes refer to the student’s self-identification, affection, attitudes, self-concept, and values.

Astin (1993) describes the classification of students’ outcome in order to investigate different types of students’ data. Outcome measures classified affective/non-cognitive and non-affective/cognitive outcomes. The non-cognitive or affective outcomes based on students’ psychological data such as student’s motivation, well-being, and satisfaction with college education. The affective/cognitive outcomes of students’ psychological measures include students’ critical thinking, general academic skills, performance on exams, or academic achievement. In addition, students’ affective outcomes refer to their behavioral data such as personal habits, avocations, mental health, use of drugs, tobacco, and alcohol, or interpersonal relations; while the lower right cell is comprised of examples of students’ cognitive outcomes based on their behavioral data (e.g., career development, level of educational attainment, or vocational achievement).
Astin (1993)’s I-E-O model is one of powerful influential model to explain college students’ academic achievement; however, it is not generally accepted as a theory (Pascarella & Terenzini, 2005) because it offers a general dynamic rather than any detailed, systematic description of the behaviors being predicted.

Educational Persistence Model

Two main frameworks for understanding students’ education persistence and engagement have been suggested by Tinto (1993) and Bean (1985). Robbins et al. (2004) reported that educational persistence model indicate common psycho-social factors of students which help students make a commitment into their college institution such as family background, SES, perceived social support, accessible resources, and social connection. Robbins et al. (2004) states that Tinto (1993) and Bean (1985)’s educational persistence and student engagement models provide empirical support for understanding prototypes of academic motivation theories in college degree completion.

Motivational Theory Models

Over the decades in psychological and educational research, motivational models have been rising to dominance to explain academic success or academic achievement in college students. In the literature, early theorists developed models such as self-efficacy (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Bandura & Cervone, 1983), which focused on expectations for academic success. Other theorists more focused on task value such as intrinsic motivation and self-determination theories (Conti, 2000; Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2000a). However, over time, integrated expectancy theoretical models and values (e.g., expectancy-value theory and self-worth theory) have been developed (Atkinson, 1957; Harrell, Caldwell, & Doty, 1985; Weiner, 1985; Wigfield & Eccles, 2000). Several reviewers of motivational research (Covington, 2000; Dweck, 1999; Eccles & Wigfield, 2002) emphasize dominant self-regulation theories, which have been integrating students’ cognition and motivation (Pintrich & De Groot, 1990; Wolters, 1998; Zimmerman, 1990; Zimmerman & Martinez-Pons, 1986). Eccles and Wigfield (2002) also highlight how self-regulation theories with expectancy and belief powerfully explain individuals’ achievement on
different tasks. In addition, *achievement goal theory*, proposed by Elliot (1999), which focuses on the reasons for commitment to college, appears to dominate in the current literature. Therefore, in the following section, two dominant motivational theories – self-regulation theory and achievement goal theory – will be discussed.

**Theoretical Foundations of Academic Success in College**

**Self-Regulation Theory**

Among motivational theories which provide a framework for studying the engagement of related factors to academic success in college, one of the social cognitive theories, Zimmerman (1994)’s conceptualization of self-regulation, outlines a cyclical process of achieving personal goals. Specifically, he suggests three key concepts in the stages: *forethought, performance or volition control*, and *self-reflection* (Zimmerman, 2000). Before actual performance, metacognitive forethought occurs, setting up the steps for action. First, students set effective goals for themselves by analyzing the tasks and plan an effective strategy for achieving those goals. In the second stage of the performance or volitional control phase, students are engaged in two key processes, self-observation and self-control, which are associated with metacognitive awareness and monitoring cognition, monitoring motivation, and monitoring achievement conditions (Pintrich, 2004). Finally, in the last stage, the self-reflection phase, students are involved in self-judgment and self-evaluation and proactive learners favor evaluating themselves in order to master their tasks (Zimmerman & Schunk, 2004).

**Achievement Goal Theory**

One of the principle theoretical conceptualizations of academic success in college is achievement goal theory (Elliot, 1999; Midgley et al., 1998; Schunk, Pintrich, & Meece, 2008). A key component of this theory is the mastery and performance goal, comprised of a performance-approach goal, a performance-avoidance goal, and a mastery goal (Elliot, 1999; Elliot & Harackiewicz, 1994). According to Harackiewicz, Pintrich, Elliot, and Thrash (2002), Performance-approach goals and performance-avoidance goals are assumed to lead to different outcomes: maladaptive outcomes from performance-avoidance goals (Elliot, 1999; Elliot & Harackiewicz, 1994; Elliot & McGregor, 1999) and adaptive outcomes from performance-
approach goals (Elliot, McGregor, & Gable, 1999). Ames and Archer (1988) found that mastery goals help students focus on self-development in learning, whereas performance goals describe one’s concerns about ability not to do worse than others (Dweck, 1986). Harackiewicz, Barron, Tauer, and Elliot (2002) reported that mastery goals can be predicted to help students continue being interested in learning.

**Summary of Models and Theories**

One of the most important things to understand in considering these models and theories of academic success in college students is that motivation is the key component which is treated as a dynamic, multifaceted phenomenon. Robbins et al. (2004) proposed that achievement motivation is the strongest predictor for GPA. Eppler and Harju (1997) also found that college students’ academic success can be predicted by their motivation in learning, whereas an incorporated model with other predictors including students’ background and perceived social support were less predictable. Psychological and educational literature, which is dominated by self-regulation theory and achievement theory, has highlighted multiphasic constructs related to academic success such as *motivational constructs* (e.g., performance goals) (Schunk & Zimmerman, 2003; Zimmerman & Martinez-Pons, 1986), *cognitive skills* (e.g., self-regulated learning strategies) (Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002; Linnenbrink & Pintrich, 2002a; Pintrich, 2000; Pintrich & De Groot, 1990); *test anxiety* (Pintrich, Smith, Garcia, & McKeachie, 1993); and *self-efficacy* (Locke & Latham, 2002). In these literatures, models and theories emphasize that there are multiple ways how students can be motivated for their academic success and how and why students are motivated to achieve are important matters.

There are strong evidences that academic performance is highly associated with motivational constructs in college students; however, it is questionable how achievement motivation impact academic goal achievement (Linnenbrink & Pintrich, 2002). Therefore, it is important for researchers to integrate multiple construct such as achievement goals, motivations, and academic skills in order to predict academic success in college students (Robbins et al., 2004).

Although achievement goal theories focusing on the reasons for commitment to colleges appear to be most dominant in the current literature, they should be revised and integrated with any theories which could explain all the constructs necessary to adequately predict academic
success in college students. Robbins et al. (2004) argued that motivational multiphasic constructs have not been clearly predictive of academic success in college students. As Robbins, Allen, Casillas, Peterson, and Le (2006) suggest the need for an integrative theory, we should consider taking the action of adapting certain constructs such as contextual level influences (e.g., institutional size); student environmental factors (e.g., perceived social support); motivation (e.g., achievement motivation and academic goal orientation); self-management (e.g., self-regulation); and general academic strategies (e.g., study skills, organization skills, and time management) to maximize predictability and generalizability of academic success in a college population. In the following section, the Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011), which is developed based on contemporary motivational models and theories that include multiphasic key components associated with academic success in college, will be introduced.

A Measure of Academic Success in College

Academic Success Inventory for College Students

The Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011) has been recently developed to examine academic success in college students. Academic Success refers to a relevant construct directly associated with motivation based on self-regulation theory and achievement goal theory. The ASICS, an online-based self-report instrument, consists of 50 items with 10 scales including general academic skills, career decidedness, internal motivation/confidence, external motivation (e.g., current and future), lack of anxiety, concentration, socializing, personal adjustment, and perception of instructor efficacy. This section will discuss these 10 constructs associated with academic success in college students.

General Academic Skills. The skills construct identifies academic-related skills comprised of self-organizational strategies, achievement goals, study skills and aids, and effort. According to Robbins et al.’s study (2004) to combine and analyze the findings of motivational research outcome, general academic skills are crucial of college students’ academic success and predictors of college students’ academic success include general academic-related skills, self-organization, time management, study habits, leadership, coping strategies, problem-solving skills, and communication skills. According to Robbins, Allen, Casillas, Peterson, and Le (2006), academic skills reflect the students’ self-management skills and self-regulation, which was
proposed by Schunk and Zimmerman (2003) and Pintrich (2000). Time management requires self-organization of time and diverse activities based on students’ schedules for studying (Pintrich, 2004). Improving effective time management skills are necessary for enhancing academic performance of college students (McKenzie & Schweitzer, 2001; Pintrich, 2004). Reviewed evidence suggests that self-efficacy promotes the use of adaptive and appropriate study skills and strategies (Linnennbrink & Pintrich, 2002b). On the other hand, according to Hattie, Biggs, and Purdie (1996)’s study to combine and analyze the findings of self-regulation and motivational research outcome, the effect of self-efficacy on study skills appears to be very small.

Interestingly, empirical findings on the predictive value of academic skills for academic success are inconsistent. McKenzie and Schweitzer (2001) report that there is no evidence that study skills are related to college GPA. George, Dixon, Stansal, Gel, and Pheri (2008) argued that time management, study skills, and time spent studying appear to be strong predictors of academic success associated with GPA, but to have little association with students’ non-academic overall personal success (e.g., goal achievement).

**Perception of Instructor Efficacy.** This factor is described as students’ perception of the instructor’s efficacy to gain students’ attention and motivate them, as well as to manage, instruct, and appraise the progress of the students. Tinto (1993) and Graunke and Woosley (2005) found that interactions with faculty were a significant predictor of college academic success. This may indicate that college students who receive better feedback and have more positive interactions with faculty are motivated by those interactions.

**Career Decidedness.** Career decidedness identifies one’s commitment to a career goal. Research has shown that career decidedness has a positive correlation with academic achievement, self-confidence, and school engagement (Hull-Blanks et al., 2005; Spitzer, 2000). According to Feldman (2003), career indecision identifies the incapability to generate career goals and inexperience in vocational development. Lunneborg (1976) found that students who were undecided on their majors had significantly lower GPAs than students who had decided their majors.

**External Motivation/Future.** External motivation indicates an external incentive to perform related to the future relevance of the class, with an emphasis placed on future career-
related issues. Researchers have reported that external motivation is a crucial factor to predict academic success in college students (Covington, 2000; Robbins et al., 2004; Ryan & Deci, 2000a). However, students with extrinsic motivation provoke different results: positively, with a willingness to perform well; or negatively, with anger, tendency to confrontation, and indifference (Ryan & Deci, 2000b).

**Internal Motivation/Confidence.** Internal motivation/confidence identifies confidence in one’s capabilities of academic achievement and satisfaction with the level of performance on a presented challenge. Internal motivation emphasizes a personal interest in the subject (Conti, 2000). Internal motivation is an important natural human tendency when learning (Ryan & Deci, 2000a). Students who have intrinsic motivations and interests tend to challenge themselves for learning, to enjoy their learning activities, to engage themselves in making more effort to learning, to utilize their acquired learning skills, and to have more self-confidence about their skills and abilities (Zimmerman, 1994).

Students with high self-confidence use more academic cognitive strategies in the learning environment, use time management skills, and use better self-monitoring and self-regulation skills. Researchers reported that self-confidence is an crucial predictor of students’ academic success in mastering educational tasks with their self-efficacy (Zimmerman, Bandura, & Martinez-Pons, 1992). Students who are confident and optimistic about their academic performance tend to accept their learning opportunity as a challenge in a positive way rather than a threat (Chemers, Hu, & Gracia, 2001). According to Bénabou and Tirole (2002), individuals who have higher self-confidence take on more ambitious goals and persevere with difficulties. They suggest that higher self-confidence improves one’s motivation which in turn build up and maintain one’s self-esteem.

**Lack of Anxiety.** Test anxiety is defined as an experience of evaluation apprehension in reference to a test situation (Elliot & McGregor, 1999). Researchers have shown that test anxiety often predicts low academic performance (Cassady & Johnson, 2002; Hembree, 1988; Yousefi, Talib, Mansor, Juhari, & Redzuan, 2010). Hancock (2001) indicated that students who have higher test anxiety perform poorly and they tend to be less motivated when exposed to a high stressful evaluative learning environment. Higher test anxiety is associated with more frequent consideration of the consequences of failure, less motivation and lower self-confidence in
performance, as well as excessive anxiety about evaluation which causes feelings of unpreparedness for the test, as well as loss of self-esteem (Cassady & Johnson, 2002). During examinations, test anxiety interferes with students’ recall of knowledge in former learning (Tobias, 1985). Similarly, high anxiety students have a hard time encoding, organizing, and retrieving volume of existing information (Naveh-Benjamin, McKeachie, & Lin, 1987).

Concentration. Concentration identifies one’s ability to sustain one’s attention on a desired outcome, which is a reliable predictor of academic achievement (Zimmerman, 1994). According to Pintrich (1995), concentration and self-regulation consists of three components: self-management of students’ resources in their learning environment (e.g., time and resources in their learning environment), motivational control (e.g. self-efficacy), and intellectual self-management strategies (e.g., organizing, rehearsing and deep processing). According to VanZile-Tamsen and Livingston (1999), low performing students demonstrated less use of self-regulating skills. Fraizer, Youngstrom, Glutting and Watkins (2007) reported that ADHD in college students demonstrates a moderate to large predictive validity in academic achievement problems (e.g., dropping out school, repeating a grade).

Socializing. Socializing identifies inappropriate levels of socializing or drug use/drinking that hinder one’s academic performance. Empirical studies support the notion that socializing can impact outcomes of academic success in college both positively and negatively. Kulm and Cramer (2006) reported that socializing on campus within student organizations and student employment was positively correlated to students’ academic success. However, DeBerard, Spielmans, and Julka (2004) showed that smoking is a significant predictor of underachievement in college freshmen, which indicates students’ escape-avoidance strategies for coping with their stress. Therefore, this empirical evidence supports increasing health and educational promotions to reduce smoking among college students. Pritchard and Wilson (2004) found that alcohol consumption in college students negatively impacts their GPA. In addition, students who do not have preventive coping strategies necessary to manage stress show tendencies to drink alcohol and use recreational drugs which are negatively associated with general well-being in college students (Hingson, Heeren, Winter, & Wechsler, 2005; Lanier, Nicholson, & Duncan, 2001).

Personal Adjustment. Personal adjustment refers to personal difficulties that diminish one’s ability to perform well academically. A considerable number of college students
experience social and emotional stress in transition when they are separated from their family and friends and relocated to a situation where they lack of social support (Pancer, Hunsberger, Pratt, & Alisat, 2000; Pritchard & Wilson, 2004). During this transition period, students often feel burdened by the sudden overwhelming responsibility for self-managing their daily lives, difficulties with academic tasks, and their new freedom and independence in decision-making. In addition, significant numbers of students report moderate to high levels of stress along with loneliness and homesickness, and difficulties in maintaining their academic work. DeBerard, Spielmans, and Julka (2004) summarized that students’ level of mental health impacting their quality of life was a key predictor of students’ academic success. Students who present with depression have been more found to be academically lower functioning with GPAs than students who present with less mental health concerns (Fazio & Palm, 1998). Prichard and Wilson (2004) also reported that emotional health such as high levels of stress and lack of coping strategies with stress management seemed to be related to their academic performance.

In sum, these 10 characteristics of the ASICS (e.g., general academic skills, perceived efficacy of instructor, career decidedness, internal and external motivation (e.g., current and future), personal adjustment, concentration, socializing, and lack of anxiety) might be useful in screening for academic success in college students. And the ASICS itself, a multifaceted self-reported measurement based on theoretical frameworks and theories, is very useful and helpful for researchers and students wanting to conceptualize academic success in college students and to evaluate the many areas comprising their academic success. Given the fact that Western cultural values are not equivalent to generalize those in Eastern culture, the research results of academic success in college students in Western culture cannot be generalized in Eastern culture. In addition, only limited information regarding the measurement of academic success in Korean college students is available, making it difficult to address any problems caused by lack of effective measurements of academic success in college students. Therefore, in order to enhance cross-cultural measurement generalizability of academic success in college students, a cross-cultural consideration of the ASICS needs to be discussed in order to improve generalizability of the instrument. In the following section, a cross-cultural consideration of academic success, particularly academic success in a college population in South Korea, will be discussed.
A Cross-Cultural Consideration of Academic Success of College Students

What are the differences of constructs of academic success between the U.S. culture and other cultures? In motivational cross-cultural research, how contextual and cultural constructs contribute to academic achievement in the process of their performance have been focused on differences in between Eastern and Western students (Lin, McKeachie, & Kim, 2001). Particularly, researchers have reported that students in Eastern Asian culture such as in China, Japan, Korea, and other southeastern Asian countries more concern about their education; college students who identified themselves as Asian American in North America and Australia achieved highly (Lin, McKeachie, & Kim, 2001; Niles, 1995; Stevenson et al., 1985). Interestingly, research shows differences in the causes of achievement outcomes in different cultures (Hau & Salili, 1996). Students who have an Asian cultural background, such as Chinese, Japanese, and Korean students, generally attribute academic success to their endeavor on study; however, they blame their academic failure to lack of effort, while students who come from a Western culture consider ability to be a larger factor in success and failure (Ho, Salili, Biggs, & Hau, 1999). Therefore, it appears to be important for researchers to understand students’ motivations associated with academic success and the differences between them, taking into account students’ cultural background and experience (Eccles & Wigfield, 2002).

Niles (1995) pointed out that achievement motivation is not a general universal construct; it’s a multiphasic and multidimensional factor in a cultural context. For example, Japanese students ascribe their academic success to the internalization of strong familial academic expectations. Watkins and Biggs (1996) mentioned that Asian students have believed that learning depends on their effort rather than their ability and Asian parents also have believed that all students can learn if they do enough work and keep up their academic efforts. The predominant belief is, if students study hard, they will do well. Watkins and Biggs emphasized Confucian heritage in differentiating the educational culture in Asian countries from the Western educational context. Hau and Salili (1996) also found that higher pressure for academic success in order to make one’s parents proud motivates Asian students in academic achievement. Historically, Korea shares a Confucian heritage, so Korean students’ attitude toward academic motivation and educational success could be similar to other Asian students, however, there is
lack of empirical evidence that the Confucian heritage affects Korean students’ patterns of academic motivation, particularly in the college population.

Over the decades, researchers’ findings in the area of self-regulation and students’ motivation has been investigated in Western cultures in terms of academic achievement in college student, particularly with a U.S. sample (Schunk, Pintrich, & Meece, 2008). These research findings cannot be generalized across culture because Western values of education and academic success are not equivalent in non-Western cultures, particularly Eastern and Southeastern educational cultures. Most research in Western culture in comparison with Eastern education system has dealt with Chinese or Japanese samples in comparison with U.S. samples (Hau & Salili, 1996; Hayamizu, 1997; Ho, Salili, Biggs, & Hau, 1999; Stevenson et al., 1985; Watkins & Biggs, 1996), while only a small amount of research has dealt with other Eastern samples in comparison with U.S. samples (Lin, McKeachie, & Kim, 2003; Silwany, 2007). There is lack of empirical evidence showing how similar or different Korean students’ patterns of academic motivation, particularly in the college population, are from U.S. samples. Therefore, in order to improve general understanding of college students’ academic success in the context of cross-cultural research including ethnically diverse college student population, the identification of academic success needs to be further explored. Particularly, it would be beneficial for Korean culture to investigate the generalizability of Western findings in the area of college students’ academic performance and motivation in order to better understand variables that can impact academic success in college students.

**Challenges in College Education and Academic Success in South Korea**

Significant quantitative and qualitative developments in post-secondary education in South Korea which have occurred since the mid–1960’s can be attributed to significant Western influences on Korean higher education (S. Lee, 1989). Western scholars helped South Koreans develop the post-secondary education systems and their curriculums. Korean higher education has experienced a wave of growth since Korea’s independence from Japan, which the number of Korean institutions in post-secondary institution has been explosively expanded from 19 in 1945 (S. Lee, 1989) to 349 in 2008 (Center for Educational Statistics, 2008), which is an eighteen-fold increase. The number of enrollment in post-secondary education has reached to approximately
3.1 million, which is also an increase of eighteen-fold (Center for Educational Statistics, 2008; S. Lee, 1989). According to Lee (1989), the most salient reason for the quantitative expansion of higher education is due to Koreans’ authentic value in education that Koreans traditionally have pursued higher education in order to improve their socioeconomic status in society.

But even as college numbers have risen, attrition rates have also increased. As shown in Table 2.2, current college student attrition is a fairly common phenomenon in South Korea. The dropout and stopout rates of two-year college and four-year universities have increased since the 1970s (S. Y. Kim, 2007). The dropout rate of two-year college and four-year universities in 2008 was 7.3% (up from 3.5%) while the stopout rate was 21.9% (up from 7.1%) (Center for Educational Statistics, 2008).

Table 2.2 Expansion of Post-Secondary Education in Korea

| Year | University Number of Institution | Increase Rate | Faculty Number Increase Rate | College Students Number Stopout Number Stopout Rate Dropout Number Dropout Rate |
|------|---------------------------------|---------------|------------------------------|---------------------------------|---------------------------------|
| 1945 | 19                              | 1.0           | 1,490                        | 7,819                           | -                               | -                               |
| 1955 | 74                              | 3.9           | 2,626                        | 84,996                          | -                               | -                               |
| 1965 | 162                             | 8.6           | 6,801                        | 141,646                         | -                               | -                               |
| 1975 | 204                             | 10.7          | 13,981                       | 238,719                         | 16,893                          | 7.1%                            | 8,367                           | 3.5%                            |
| 1985 | 255                             | 13.4          | 33,483                       | 1,209,647                       | 126,757                         | 10.5%                           | 37,558                          | 3.1%                            |
| 1999 | 355                             | 18.7          | 41,092                       | 2,949,472                       | 507,189                         | 17.2%                           | 101,025                         | 3.4%                            |
| 2005 | 367                             | 19.3          | 49,158                       | 3,209,793                       | 573,946                         | 17.9%                           | 145,532                         | 4.5%                            |
| 2008 | 349                             | 18.1          | 54,199                       | 3,175,244                       | 695,590                         | 21.9%                           | 230,931                         | 7.3%                            |


Under such a massive quantitative expansion throughout six decades of higher education in South Korea, the most critical problem faced by the post-secondary education system is how to retain and enhance academic quality and excellence (S. Lee, 1989). South Korean stopout and dropout rates also seem to follow a pattern similar to that in North America. In 2009 in the United States, approximately 40% of college students drop out without completing their degrees, and unfortunately, the number of students dropped out or stopped out from college without
getting their bachelor’s degrees in South Korea has also been increasing. As Kim (2007) states most colleges in South Korea (e.g., 83.5% of two-year colleges and 69.7% of four-year colleges) are private, thus are financially dependent on students’ tuition for administration. Therefore, student retention and attrition is a significant concern in maintaining the quality of instruction and college administration. Higher rates of dropout and stopout mean the loss of colleges’ income as well as the threat of being shut down. Addressing issues of academic success is clearly important, but is made difficult by the lack of available information regarding the measurement of academic success in Korean college students.

**Summary**

The purpose of the current study was twofold: First, to translate the Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011) into Korean. Second, to test the cross-cultural validation including the reliability and validity of the Korean translated version of the ASICS with a sample of college students in South Korea in order to enhance our understanding of cross-cultural measurement generalizability in the area of academic success in college students.

In this chapter, a review of the literature has been provided by delineating the general conceptualization of academic achievement, educational models, and motivational theories and constructs related to the academic success in the college student population (e.g., self-regulation theory and achievement goal theory), and a cross-cultural consideration of academic success and challenges in college education and academic success in South Korea. The present study, which examines empirical evidence in cross-cultural validation of the measurement of academic success of college students, would be beneficial for evaluating the generalizability of findings to other culture groups, specifically students in South Korea. The current study, in which the ASICS is translated into the Korean language, might be useful as it enables a comparison of Western samples to non-Western samples, thus greatly adding to the limited existing information regarding the measurement of academic success in college students in non-Western cultures. Moreover, it would be beneficial if the relationships between South Korean students’ motivational value and belief in academic performance and their ASICS scores could be generally corroborated by Western motivational theory and educational and psychological
research, because a similarity between the U.S. and South Korean students as regards academic success might be indicated. As mentioned by Olaussen and Braten (1999), researchers, administrators, educators, and college service providers should take potential cross-cultural differences into account in the course of their work with theoretical issues and educational applications of academic success, especially as the United States becomes an increasingly multicultural nation.
CHAPTER THREE
METHODOLOGY

In this chapter, the methodology of the current study will be presented. This chapter includes a description of participants, procedure (e.g., translation and back-translation of the ASICS into Korean and data collection), instrumentation with measures of academic success, and data analysis.

Participants

Descriptive statistics for the Korean version of the ASICS are presented below. The demographic characteristics of the participants presented include age, gender, and year in school. Because the data was collected during the Spring 2011 semester (upon approval of the study by the Institutional Review Board (IRB) at Florida State University) and the South Korean school year starts in March, many of the freshmen GPAs (i.e., n=92 out of 120), were not yet known. Participants in the present study comprise 975 college students in South Korea. The participants were recruited from education, public administration, speech pathology, business, and psychology programs at 10 universities (9 private universities and 1 public university) located in various areas of South Korea. As mentioned above, almost 70% of 4-year colleges in South Korea are private and thus dependent on students’ tuition and fees. Three of the private universities were located in Seoul, the nation’s capital, which has a population of 11 million. Two of the private universities were located in Gyeonggi Province, about 40 kilometers south of Seoul. Gyeonggi Province, newly developed in the 21st century due to the high population growth of Seoul, has a population of nearly 1 million, and consists of an urbanized district, a semi-urbanized district, and a rural district. Both universities used in this study were from the semi-urbanized suburb two more universities were located in western Chungcheong Province, about 85 kilometers south of Seoul. Of these two universities, one was a satellite campus to one of the private universities in Gyeonggi Province. And the other was a public university specializing in applied technology and engineering. In addition, two universities, one private and one public, were located in Gwangju Metropolitan City, which has a population of nearly 1.5 million and is
located about 270 kilometers south of Seoul. Finally, one private university was located in a rural area of Iksan City in the northwestern part of Jeollabuk-do. Iksan has a population of 320,000.

In terms of means and standard deviations for each subscale on the Korean ASICS, it is ranged from 47.64 to 72.64 and 11.65 to 24.17, respectively. Characteristics of the sample were as follows: mean GPA = 3.59 (SD = .47) on a 4.5-point scale (e.g., A+= 4.5; A= 4; B+= 3.5; B=3; C+=2.5; C=2; D+=1.5; and D=1); mean age = 22.55 (SD = 2.38); age range = 18 – 31; females = 54.6% (n=532); males = 45.2% (n=441); freshman = 12.3% (n=120); sophomore = 36.5% (n=356); junior = 28.2% (n=275); senior = 22.8% (n=222); ADHD = 1.1% (n=11); and LD= .5 (n=5).

Other interesting descriptive findings are included. For instance, 58.8% of the participants (n=573) reported that all their college expenses were paid by their parents. 59% of the participants (n=575) reported that they were not working at a job for pay. 59.1% of the participants (n=576) reported currently living at home with their parents and commuting to school.

In order to determine how many participants are required for each analysis, a power analysis was conducted using the G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). One-tailed bivariate normal correlations between students’ grades and the ten subscales of the Korean version of ASICS (e.g., criterion validity) and a normal test of correlations between the ten subscales of the Korean language version of the ASICS and the MSLQ (e.g., convergent validity) were conducted at a medium effect size of ρ = .3 at α = .05. The G* Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) indicated that the power of .95 can be achieved with a sample of n = 115, which allows for 5% rate of non-response. The researcher aimed for a sample size of 121. In addition, a power analysis was conducted for a multivariate analysis of variance (MANOVA) between high performing students and low performing students on the ten subscales of the Korean ASICS at a medium effect size of ρ = .5 at α = .05. The G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) also showed that a power of .95 can be achieved with a sample of n = 60. Finally, there are no strict rules for a power analysis of Factor Analysis. However, some suggestions (MacCallum, Browne, & Sugawara, 1996) are provided for achieving adequate power for Factor Analysis. It is recommended to have a sample size of at least 100 as larger sample sizes guarantee more reliable factors. For Factor Analysis, effect size is determined in
terms of a desired ‘goodness of fit’ model value of the root-mean-square error of approximation (RMSEA) index (MacCallum, Browne, & Sugawara, 1996). Typical values for RMSEA (MacCallum, Browne, & Sugawara, 1996) are as follows: a close fit is RMSEA ≤.05; fair is RMSEA = .05 to .08; mediocre is RMSEA = .08 to .10; and poor is RMSEA ≥.10. This study obtained a sample size of 975, which exceeds minimum necessary requirements thus providing more than enough power for conducting the following research.

**Procedures**

**Translation of the Academic Success Inventory for College Students (ASICS)**

Written permission was obtained from the first author of the original instrument of ASICS for the translation of the ASICS scale into Korean for use with the Korean population. Prescribed and validated translation procedures suggested by researchers for translation of the original ASICS into Korean were strictly followed (Brislin, 1970; Chapman & Carter, 1979; Geisinger, 1994; Hambleton, 2001). First, an item-by-item translation of 50 items was made by the principal investigator, who is fluent in both English and Korean and familiar with both Korean and the U.S. cultures. Further, having obtained both a bachelor’s and a master’s degree in Education in South Korea as well as having lived for approximately 8 years in the U.S. and having there received a master’s degree in psychology, she is also well-informed of the content measured by the ASICS. The intent for this item-by-item translation was to make sure that each translated item of the original ASICS was interpreted for the Korean culture while avoiding any unnecessary changes of the original concept. Second, a panel comprised of four members who have experience with the educational system in both Korea and the United States, was formed to review and compare each item of the original ASICS with the Korean translated version in order to ensure the quality of the translation. All four members, two females and two males, have lived in the U.S. for approximately 5 to 10 years. Two panel members are pursuing doctoral degrees in education and medicine in the United States, and two panel members have already earned their doctoral degree in biology and speech pathology. Each panel member was given an original copy of the ASICS as well as the initial Korean translated version. The panel then met to review the translated items and discuss each member’s reflections regarding retention of original meaning. This feedback was used to modify and revise the translation, resulting in a finalized second draft.
Third, this new draft of the Korean ASICS was translated back into English by a male associate professor of English, who has lived in the U.S. for approximately 15 years and is fluent in both Korean and English, who was unfamiliar with the ASICS and had had no previous participation in the translation procedure. This “back translation” was then examined by the original author of the ASICS in order to ensure a high degree of functional and conceptual equivalence between the source and the target language version of the ASICS items. From this review a complete and final Korean ASICS version resulted.

Data Collection

Before conducting data collection, written permission was received from Florida State University Institutional Review Board (IRB). The primary researcher obtained written and verbal permission from course instructors of various classes from colleges in South Korea to administer the test to students during regularly scheduled class hours. Once course instructors gave permission to the primary researcher, informed consent forms in a paper-and-pencil format were received from the participants during their classes. In the original study, U.S. student participants were given the survey in an online format. The instructors gave the informed consent forms to the students and the primary researcher debriefed the student regarding the purpose of the study in order to avoid threats to the study’s internal validity. The student participants were informed verbally as well as in writing that participation in the present study was completely voluntary and that withdrawal from the participation in the present study would not affect their academic performance. There was no compensation or payment for participation in this study. The survey was completed during the class period. The following forms and measures were completed in printed format during the survey: the demographic questionnaire, the ASICS (Prevatt et al., 2011), and the MSLQ (Pintrich, Smith, Garcia, & McKeachie, 1991). All identifying information was removed from the data to protect participants’ confidentiality.

Instrumentation

Academic Success Inventory for College Students (ASICS)

Statement of Purpose, Reliability, Validity, and Scales. The Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011) was used to examine academic
success in college students. The term Academic Success refers to a relevant construct directly associated with motivation based on self-regulation theory and achievement goal theory. The ASICS, a recently published online-based self-report instrument, consists of 50 items with 10 scales consisting of general academic skills, career decidedness, internal motivation/confidence, external motivation/current and future, lack of anxiety, concentration, socializing, personal adjustment, and perception of instructor efficacy. The ASICS uses a 7-point Likert scale to rate items from 1 (Strongly Disagree) to 7 (Strongly Agree). There are items which are negatively stated for scoring reversely: the higher the scores on items, the more positive functioning indicated in college. Subscale scores are transformed into a score ranging from 1 to 100. Evidence of strong reliability and validity has been documented via exploratory and confirmatory factor analysis, internal consistency, discriminant validity, and predictive validity (Prevatt et al., 2011). The 10-factor model associated with internal consistency of the ASICS is.93 and Cronbach’s $\alpha$ for the individual subscales is as follows: General Academic Skills (.93); Perceived Instructor Efficacy (.92); Career Decidedness (.87); External Motivation/Future (.88); Internal Motivation/Confidence (.86); Personal Adjustment (.86); Concentration (.87); Socializing (.84); External Motivation/Current (.62); and Lack of Anxiety (.77). Discriminant validity of the ASICS has been shown to be strongly evident via the comparison between high performing students and low performing students (Welles, 2010). All subscales excluding External Motivation/Current have been significantly different and positive in a group of high achieving students. In addition, predictive validity of the ASICS was evident in that the 10 subscale scores predicted 41 percent of the variation in grades. Subscales on the ASICS such as General Academic Skills, Personal Adjustment, Internal Motivation/Confidence, Socializing, and Concentration were highly predictive of GPA.

A description of the subscales with a sample statement for each is as follows:

1. General Academic Skills (12 items) – a combination of self-organizational strategies, achievement goals, study skills and aids, and effort (e.g., “I made good use of tools, such as planners, calendars, or organizers.”).

2. Perceived Instructor Efficacy (5 items) – perception of the instructor’s ability to gain students’ attention, to motivate them, as well as to manage, instruct, and appraise the progress of the students (e.g., “The instructor really motivated me to do well.”).
3. Career Decidedness (4 items) – one’s commitment to a career goal (e.g., “I am certain about what occupation I want after I graduate.”).

4. External Motivation/Future (4 items) – an external incentive to perform related to the future relevance of the class, with an emphasis placed on future career-related issues (e.g., “I needed to do well in this class to get a good job later on.”).

5. Internal Motivation/Confidence (8 items) – confidence in one’s capabilities of achieve academically and satisfaction with the level of challenge presented (e.g., “I enjoyed the challenge of learning just for learning’s sake.”).

6. Personal Adjustment (3 items) – personal difficulties that diminish one’s ability to perform well academically (e.g., “I had some personal difficulties that affected my performance.”).

7. Concentration (4 items) – ability to maintain sustained attention on a desired outcome (e.g., “It was easy to keep my mind from wandering.”).

8. Socializing (4 items) – socializing or drug use/drinking that hinders one’s academic performance (e.g., “Sometimes my drinking behavior interfered with my studying.”).

9. Lack of Anxiety (3 items) – lack of anxiety and apprehension which can affect one’s academic performance (e.g., “I was nervous about tests even when I was well prepared.”).

10. External Motivation/Current (3 items) – current external incentives to perform such as course grades, college graduation, parents, or approval of others (e.g., “I needed good grades to keep up my GPA.”).

The Motivated Strategies for Learning Questionnaire (MSLQ)

Statement of Purpose, Reliability, Validity, and Scales. The Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991) was used to examine students’ motivational beliefs and their effects on learning skills. The authors of the MSLQ (1991) categorized students’ motivation into three general concepts such as value, expectancy and affect. Value refers to intrinsic and extrinsic goal orientations and task importance. Expectancy includes self-management in learning and self-efficacy. Affect indicates test anxiety. The MSLQ comprises 81 items with two section scales: Motivation and learning skills. The Motivation scales comprise 31 items which examine students’ goals orientation and
expectations, and test anxiety. The Learning Skills scale consists of 50-items with nine subscales including students’ utilization of intellectual skills and metacognitive schema of learning (31 items) and students’ self-management in learning resources (19 items). The MSLQ uses a 7-point Likert Scale System to grade items from 1 (Not at all true of me) to 7 (Very true of me). The reliability and validity of the MSLQ has been reported by empirical studies (Pintrich, Smith, Garcia, & McKeachie, 1993). Pintrich, Smith, Garcia, and McKeachie’s study (1991) reported that the internal consistency of the MSLQ is in a range of .52 to .93. Their study reported the coefficient alphas in a range of .62 to .93 for Motivation Scales (e.g., Intrinsic Goal Orientation, Extrinsic Goal Orientation, Task Value, Control of Learning Beliefs, Self-Efficacy for Learning and Performance, Test Anxiety); and in a range of .52 to .80 for Learning Skills Scales (e.g., Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation, Time and Study Environment Management, Effort Regulation, Peer Learning, Help-Seeking). These coefficient alphas indicated that the MSLQ had an appropriate to good internal consistency in these samples. A priori predictions of scales on the MSLQ assumed high correlations between Intrinsic Goal Orientation on the MSLQ and Internal Motivation/Confidence on the ASICS; Extrinsic Goal Orientation on the MSLQ and External Motivation/Future and Current on the ASICS; Self-Efficacy for Learning and Performance and Metacognitive Self-Regulation on the MSLQ and Concentration on the ASICS; and Effort Regulation on the MSLQ and General Academic Skills on the ASICS. It was thought that Test Anxiety on the MSLQ might be negatively correlated with Lack of Anxiety on the ASICS. In the present sample, the Cronbach’s alpha reliability estimate for the MSLQ was examined, and found to be .96.

The Korean version of the MSLQ was developed by Kim (2006), following procedures of translation, back-translation, and necessary adaptations. A.96 Cronbach’s α of the Korean version of the MSLQ was reported.
This chapter presents the results of the statistical analyses of the current study. The present study aimed to translate the Academic Success Inventory for College Students (ASICS; Prevatt et al., 2011), which was originally developed in an English speaking Western culture in the United States, into the Korean language and to test the cross-cultural validation of the Korean version of the ASICS with a sample of Korean college students. This chapter includes discussion of the process used to translate and adapt the original ASICS for the present study, the Korean ASICS scales’ reliability and four validities such as criterion, convergent, discriminant, and factorial validities of the Korean ASICS, and the results of data analyses in the present validation study.

Considerations of Issues in Translation of the ASICS for Use in South Korean Culture

The translation procedures prescribed by researchers (Brislin, 1970; Chapman & Carter, 1979; Geisinger, 1994; Hambleton, 2001) were strictly followed in order to obtain a quality translation and to improve the generalizability of the ASICS instrument. When instruments are translated and adapted effectively from the original culture to the target culture (Butcher, Cheung, & Lim, 2003; Geisinger, 1994), three items are commonly considered: functional equivalence, conceptual/linguistic equivalence, and psychometric equivalence. In order to obtain functional equivalence, the primary researcher of the present study conducted an item-by-item translation between the original ASICS and the Korean version of the ASICS. For example, item 55, “I made good use of tools such as planners, calendars and organizers in this class,” represented behavior within the U.S. sample that was expected to be functionally equivalent in the Korean population. And, the further statistical analyses of the intercorrelation between items and factor structures in the current chapter represent functional equivalence of the original ASICS instrument used in Korean culture. To ensure conceptual/linguistic equivalence, each item’s translation was reviewed by a panel, retranslated, and then back-translated and reviewed in English by the original author of the instrument. This is not to say that all items were translated word-for-word. For example, the English version of item 45 states, “I got behind in this class
because I spent too much time partying or hanging out with my friends.” The words “partying” and “hanging out” do not have a literal translation in Korean, thus the back-translation of item 45 read, “I lagged behind because I spent too much time drinking or playing.” “Drinking or playing” are culturally appropriate terms whose meaning is conceptually equivalent in the Korean culture. Finally, psychometric equivalence was obtained by use of various statistical analyses such as reliability, content validity, convergent validity, discriminant validity, and factor validity. In the following section, the results of data analyses in this validation study will be presented.

**Statistical Results**

**Reliability**

1. Do subscale scores on the Korean version of the ASICS reflect evidence of internal consistency reliability?

   The reliability was tested using Cronbach’s alpha coefficients. In the present study, internal consistency (e.g., a coefficient alpha value) was calculated for each of the ten Korean ASICS subscales. In order to test the subscale scores’ reliability, Cronbach’s alpha scores were calculated in order to measure how well the individual questions in each of the ten ASICS scales correlated with the sum of the remaining questions. Internal consistency values were evaluated according to the following scale with a coefficient alpha range of excellent >.90; good = .80 to .89; adequate = .70 to .79; questionable = .60 to .69; poor = .50 to .59; and unacceptable <.50 (George & Mallery, 2003).

   In the present study, the overall Cronbach’s alpha coefficient of the Korean version of the ASICS was .91 which is in the excellent range. From the 975 participants, 125 participants were excluded in calculating the overall Cronbach’s alpha coefficient due to missing data required for internal consistency. Cronbach’s alpha values for the Korean-translated version of the ASICS are presented in Table 4.1 Initial analyses revealed that seven of the ten scales had adequate to excellent evidence of internal consistency reliability (coefficient alpha >.70). The coefficient alpha values of the ten Korean ASICS subscales were as follows: Career Decidedness = .83; Internal Motivation/Confidence = .76; External Motivation/Future = .85; General Academic Skills = .91; Lack of Anxiety = .65; Concentration = .80; External Motivation/Current Time = .67; Personal Adjustment = .74; Perceived Instructor Efficacy = .84; and Socializing = .68. The
overall mean scores and standard deviations, which ranged from 49.42 to 73.92 and 12.93 to 21.33, respectively, are shown in Table 4.1.

Table 4.1 Overall Means, Standard Deviations, and Cronbach’s Alpha Reliabilities of the Ten Korean ASICS Subscales and the Original ASICS

<table>
<thead>
<tr>
<th>Scale</th>
<th>The Korean Translated ASICS with a Korean sample</th>
<th>The Original ASICS with a U.S. sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall Means (n = 850)</td>
<td>Standard Deviations</td>
</tr>
<tr>
<td>CD</td>
<td>.83 (947)</td>
<td>64.69</td>
</tr>
<tr>
<td>IMC</td>
<td>.76 (944)</td>
<td>67.05</td>
</tr>
<tr>
<td>EMF</td>
<td>.85 (944)</td>
<td>67.86</td>
</tr>
<tr>
<td>GAS</td>
<td>.91 (924)</td>
<td>62.60</td>
</tr>
<tr>
<td>LA</td>
<td>.65 (948)</td>
<td>49.42</td>
</tr>
<tr>
<td>CO</td>
<td>.80 (940)</td>
<td>63.91</td>
</tr>
<tr>
<td>EMC</td>
<td>.67 (953)</td>
<td>67.50</td>
</tr>
<tr>
<td>PA</td>
<td>.74 (945)</td>
<td>64.99</td>
</tr>
<tr>
<td>PIE</td>
<td>.84 (951)</td>
<td>73.92</td>
</tr>
<tr>
<td>SO</td>
<td>.68 (935)</td>
<td>71.28</td>
</tr>
</tbody>
</table>

Note. CD = Career Decidedness; IMC = Internal Motivation/Confidence; EMF = External Motivation/Future; GAS = General Academic Skills; LA = Lack of Anxiety; CO = Concentration; EMC = External Motivation/Current; PA = Personal Adjustment; PIE = Perceived Instructor Efficacy; SO = Socializing
**Criterion Validity**

1. What are the relationships between students’ grades and the ten Korean ASICS subscales?

To examine the criterion validity of the Korean ASICS, correlational analysis was calculated between the ten scale scores of the Korean ASICS (i.e., t-scores) and cumulative GPA.

Correlations between the ten Korean ASICS subscales and GPA were calculated and are presented in Table 4.2; the means and standard deviations of GPA were also calculated for this present study. Eight subscales were positive and statistically significantly correlated with GPA at the .01 level. Lack of Anxiety and Perceived Instructor Efficacy were not statistically significant at the .01 level. Significant correlations ranged from .30 (General Academic Skills) to .08 (External Motivation/Future). In all cases, more positive functioning on the Korean ASICS was associated with a higher GPA.

**Convergent Validity**

1. What are the relationships between the subscale scores on the Korean version of the ASICS and the MSLQ?

Correlational analysis was conducted using t-scores on the Korean ASICS and t-scores on the MSLQ. T-scores were derived from a mean of 50 and a standard deviation of 10. Correlation coefficients were calculated utilizing t-scores on the Korean ASICS and the MSLQ t-scores. The a priori predictions of scales on the MSLQ hypothesized high correlations between Intrinsic Goal Orientation on the MSLQ and Internal Motivation/Confidence on the ASICS; Extrinsic Goal Orientation on the MSLQ and External Motivation/Future and Current on the ASICS; Self-Efficacy for Learning and Performance and Metacognitive Self-Regulation on the MSLQ and Concentration on the ASICS; and Effort Regulation on the MSLQ and General Academic Skills on the ASICS. It was postulated that Test Anxiety on the MSLQ might be negatively correlated with Lack of Anxiety on the ASICS.

In the present sample, the overall Cronbach’s alpha reliability estimate for the MSLQ was determined to be .96. The relationship between scales on the MSLQ and the ten Korean ASICS subscales were examined with subjects rated on the Korean ASICS and MSLQ. Table 4.3 illustrates the correlations as well as the means and standard deviations on the MSLQ for this sample. As hypothesized, the following correlations between the Korean ASICS and the MSLQ
were statistically significant (p<.05): Intrinsic Goal Orientation on the MSLQ and Internal Motivation/Confidence on the ASICS ($r = .38$, $p < .05$); Extrinsic Goal Orientation on the MSLQ and External Motivation/Future on the ASICS ($r = .19$, $p < .05$); Extrinsic Goal Orientation on the MSLQ and External Motivation/Current on the ASICS ($r = .66$, $p < .05$); Self-Efficacy for Learning and Performance on the MSLQ and Concentration on the ASICS ($r = .45$, $p < .05$); Metacognitive Self-Regulation on the MSLQ and Concentration on the ASICS ($r = .40$, $p < .05$); and Effort Regulation on the MSLQ and General Academic Skills on the ASICS ($r = .52$, $p < .05$).

As hypothesized, Test Anxiety on the MSLQ was negatively correlated with Lack of Anxiety on the ASICS ($r = -.50$, $p < .05$).
<table>
<thead>
<tr>
<th>GPA (n)</th>
<th>CD</th>
<th>IMC</th>
<th>EMF</th>
<th>GAS</th>
<th>LA</th>
<th>CO</th>
<th>EMC</th>
<th>PA</th>
<th>PIE</th>
<th>SO</th>
<th>GPA</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(947)</td>
<td>.24**</td>
<td></td>
<td></td>
<td>.08*</td>
<td>.30**</td>
<td>.02</td>
<td>.10**</td>
<td>26**</td>
<td>.09*</td>
<td>-.02</td>
<td>.23**</td>
<td>3.59</td>
<td>.47</td>
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<tr>
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<td>.23**</td>
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<td></td>
<td>(944)</td>
<td></td>
</tr>
<tr>
<td>(944)</td>
<td></td>
<td></td>
<td>.08*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(948)</td>
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</tr>
<tr>
<td>(924)</td>
<td></td>
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<td></td>
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<td>.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(935)</td>
<td></td>
</tr>
</tbody>
</table>

Note. * Correlation is statistically significant: p < .05.
** Correlation is statistically significant: p < .01

CD = Career Decidedness; IMC = Internal Motivation/Confidence; EMF = External Motivation/Future; GAS = General Academic Skills; LA = Lack of Anxiety; CO = Concentration; EMC = External Motivation/Current; PA = Personal Adjustment; PIE = Perceived Instructor Efficacy; SO = Socializing
Table 4.3 Bivariate Correlations Between the Korean ASICS and the MSLQ

<table>
<thead>
<tr>
<th>The Ten Korean ASICS Subscales</th>
<th>CD</th>
<th>IMC</th>
<th>EMF</th>
<th>GAS</th>
<th>LA</th>
<th>CO</th>
<th>EMC</th>
<th>PA</th>
<th>PIE</th>
<th>SO</th>
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<tbody>
<tr>
<td>CD (n)</td>
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<td>.38** (908)</td>
<td>.26** (915)</td>
<td>.23** (897)</td>
<td>.16** (914)</td>
<td>.24** (902)</td>
<td>-.04 (920)</td>
<td>.05 (915)</td>
<td>.23** (916)</td>
<td>.07* (906)</td>
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<td>IMC (n)</td>
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<td>.19** (920)</td>
<td>.28** (902)</td>
<td>-.27** (919)</td>
<td>.05 (907)</td>
<td>.67** (925)</td>
<td>-.06 (920)</td>
<td>.04 (921)</td>
<td>.06 (910)</td>
</tr>
<tr>
<td>EMF (n)</td>
<td>.29** (924)</td>
<td>.57** (917)</td>
<td>.47** (921)</td>
<td>.48** (903)</td>
<td>.10** (922)</td>
<td>.44** (910)</td>
<td>.12** (930)</td>
<td>.10** (922)</td>
<td>.47** (925)</td>
<td>.22** (912)</td>
</tr>
<tr>
<td>GAS (n)</td>
<td>.18** (926)</td>
<td>.40** (916)</td>
<td>.31** (924)</td>
<td>.27** (905)</td>
<td>.02 (922)</td>
<td>.26** (910)</td>
<td>.18** (928)</td>
<td>-.01 (924)</td>
<td>.30** (924)</td>
<td>.10** (914)</td>
</tr>
<tr>
<td>LA (n)</td>
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<td>.68** (902)</td>
<td>.30** (892)</td>
<td>.58** (892)</td>
<td>.23** (906)</td>
<td>.45** (894)</td>
<td>.21** (911)</td>
<td>.16** (906)</td>
<td>.28** (908)</td>
<td>.23** (897)</td>
</tr>
<tr>
<td>CO (n)</td>
<td>-.13** (925)</td>
<td>-.15** (916)</td>
<td>.05 (923)</td>
<td>.02 (904)</td>
<td>-.50** (922)</td>
<td>-.11** (910)</td>
<td>.27** (928)</td>
<td>-.19** (923)</td>
<td>-.03 (924)</td>
<td>-.11** (913)</td>
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<tr>
<td>EMC (n)</td>
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<td>.33** (919)</td>
<td>.25** (926)</td>
<td>.48** (906)</td>
<td>-.14** (926)</td>
<td>.22** (913)</td>
<td>.37** (931)</td>
<td>.03 (926)</td>
<td>.13** (928)</td>
<td>.19** (916)</td>
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<tr>
<td>PA (n)</td>
<td>.24** (920)</td>
<td>.47** (913)</td>
<td>.32** (919)</td>
<td>.52** (914)</td>
<td>.02 (918)</td>
<td>.30** (905)</td>
<td>.20** (923)</td>
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<td>.23** (921)</td>
<td>.21** (909)</td>
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<tr>
<td>PIE (n)</td>
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<td>.37** (912)</td>
<td>.21** (917)</td>
<td>.48** (899)</td>
<td>-.04 (916)</td>
<td>.25** (904)</td>
<td>.24** (922)</td>
<td>.07** (919)</td>
<td>.12** (918)</td>
<td>.21** (907)</td>
</tr>
<tr>
<td>SO (n)</td>
<td>.21** (918)</td>
<td>.43** (910)</td>
<td>.23** (917)</td>
<td>.45** (899)</td>
<td>.14** (915)</td>
<td>.28** (904)</td>
<td>.05 (922)</td>
<td>.04 (916)</td>
<td>.19** (918)</td>
<td>.13** (906)</td>
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<tr>
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<td>55.74</td>
<td>65.88</td>
<td>64.38</td>
<td>65.80</td>
<td>75.93</td>
<td>72.00</td>
<td>73.09</td>
<td>70.54</td>
<td>14.34</td>
</tr>
<tr>
<td>SD</td>
<td>12.58</td>
<td>13.95</td>
<td>12.09</td>
<td>10.37</td>
<td>12.58</td>
<td>15.50</td>
<td>12.63</td>
<td>15.50</td>
<td>14.39</td>
<td>12.63</td>
</tr>
</tbody>
</table>

Note. Correlations based on a-priori predictions are in bold. CD = Career Decidedness; IMC = Internal Motivation/Confidence; EMF = External Motivation/Future; GAS = General Academic Skills; LA = Lack of Anxiety; CO = Concentration; EMC = External Motivation/Current; PA = Personal Adjustment; PIE = Perceived Instructor Efficacy; SO = Socializing.
IGO= Intrinsic Goal Orientation; EGO = Extrinsic Goal Orientation; TV = Task Value; CLB = Control of Learning Beliefs; Self-Efficacy for Learning and Performance; TA = Test Anxiety; RE = Rehearsal; EL = Elaboration; ORN = Organization; CT = Critical Thinking; MSR = Metacognitive Self-Regulation; TSE = Time and Study Environment; ER = Effort Regulation; PL = Peer Learning; HS = Help Seeking. * Correlation is statistically significant: p <.05.
** Correlation is statistically significant: p <.01.
Discriminant Validity

1. Do high performing students and low performing students evidence differences on the ten subscales of the Korean ASICS?

   Discriminant validity was evaluated by comparing students who were high performing with low performing students, using the median of the participants’ GPA to create the two groups. A multivariate analysis of variance (MANOVA) was used to access differences in the ten mean scale scores between the two groups. The median of the participants’ GPAs was 3.6 out of 4.4. The high achieving students (e.g., GPA > 3.6; n=303) were compared to the low achieving students (e.g., GPA < 3.6; n=311) on the ten ASICS scales. There was a statistically significant difference between high performing students and low performing students on the ten Korean ASICS scales, $F(10, 603) = 14.62, p = .000$; Wilks’Lamda = .81; partial eta squared = .20. As shown in Table 4.4, there were significant main effects for: Career Decidedness, $F(1, 612) = 36.45, p<.001$; Internal Motivation/Confidence, $F(1, 612) = 24.48, p<.001$; General Academic Skills, $F(1, 612) = 60.54, p<.001$; Concentration, $F(1, 612) = 6.54, p<.05$; External Motivation/Current, $F(1, 612) = 51.22, p<.001$; Personal Adjustment, $F(1, 612) = 7.54, p<.01$; Socializing, $F(1, 612) = 27.10, p<.001$. There were not significant main effects for External Motivation/Future, Lack of Anxiety, and Perceived Instructor Efficacy. An inspection of mean scores indicated that high performing students had more positive functioning scores than low performing students on the seven Korean ASICS described above.

   These results of the MANOVA suggest that there are moderate to small differences between high performing students and low performing students in the areas of commitment to career goals, confidence in their capability to achieve academically and satisfaction with the level of challenge presented with performance, a combination of self-organizational strategies, achievement goals, study skills and aids, and effort, current external incentives to perform such as course grades, college graduation, parents, or approval of others, and socializing or drug use/drinking that hinders one’s academic performance. In addition, between two groups, there are small differences in the area of an external incentive to perform related to the future relevance of the class, with an emphasis placed on future career-related issues, personal difficulties that diminish one’s ability to perform well academically, and ability to maintain sustained attention on a desired outcome.
Table 4.4 MANOVA Results and Mean Scores between High Performing Students and Low Performing Students

<table>
<thead>
<tr>
<th>Scale</th>
<th>Overall Means (n=850)</th>
<th>High Performing Students (n=303)</th>
<th>Low Performing Students (n=311)</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>F</td>
<td>p</td>
<td>r^2</td>
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<tr>
<td>CD</td>
<td>64.69</td>
<td>70.05</td>
<td>60.04</td>
<td>20.97</td>
<td>36.45</td>
<td>.000</td>
<td>.06</td>
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<tr>
<td>IMC</td>
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<td>70.61</td>
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<td>.000</td>
<td>.04</td>
</tr>
<tr>
<td>EMF</td>
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<td>68.37</td>
<td>66.99</td>
<td>17.25</td>
<td>.92</td>
<td>.339</td>
<td>.001</td>
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<tr>
<td>GAS</td>
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<td>67.71</td>
<td>59.03</td>
<td>14.83</td>
<td>60.54</td>
<td>.000</td>
<td>.09</td>
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<td>49.10</td>
<td>49.13</td>
<td>17.89</td>
<td>.00</td>
<td>.987</td>
<td>.000</td>
</tr>
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<td>CO</td>
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<td>.08</td>
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<td>73.58</td>
<td>74.61</td>
<td>15.27</td>
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<td>.417</td>
<td>.001</td>
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<tr>
<td>SO</td>
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<td>74.79</td>
<td>68.16</td>
<td>16.83</td>
<td>27.10</td>
<td>.000</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. CD = Career Decidedness; IMC = Internal Motivation/Confidence; EMF = External Motivation/Future; GAS = General Academic Skills; LA = Lack of Anxiety; CO = Concentration; EMC = External Motivation/Current; PA = Personal Adjustment; PIE = Perceived Instructor Efficacy; SO = Socializing
Factorial Validity

1. What are the relationships among the ten Korean ASICS subscales?
   Person product moment correlations among the ten Korean ASICS subscales were computed (Table 4.5). In the Korean sample, highest correlations were found between Internal Motivation/Current and General Academic Skills ($r = .69$, $p < .01$). High correlations were also found between Internal Motivation/Current and Concentration ($r = .55$, $p < .01$) and General Academic Skills and Concentration ($r = .55$, $p < .01$). Moderately high correlations were found between Personal Adjustment and Socializing in the Korean sample ($r = .38$, $p < .01$), which is consistent with results of the U.S. ASICS sample (Prevatt et al., 2011).

2. Is the ten-factor model solution of the Korean ASICS consistent with the factor structure of the original English version of the ASICS?
   In order to test the ten-factor model of the Korean ASICS with all 50 items as indicators of each variable, a confirmatory factor analysis was conducted by using LISREL 8.8 (Jöreskog & Sörbom, 2006). Standardized factor loadings and the proportion of variance in each variable accounted for by the relationships in the model were calculated. In addition, multiple model fit indices were used to assess model fits: the chi-square goodness of fit index, the root-mean-square error of approximation (RMSEA), the adjusted goodness of fit index (AGFI), the non-normed fit index (NNFI), and the comparative fit index (CFI).
   
   The results of the confirmatory factor analysis of the Korean ASICS are as follows: the ten factor model of $\chi^2[1130] = 8858.27$, $p = 0.0$, RMSEA = .084 (90% CI = .082, .085), NNFI = .93, CFI = .93, AGFI = .70. The obtained NNFI value of .93 and CFI value of .93 were in the adequate range because those values were .90 or larger. However, the RMSEA value of .084 and AGFI value of .70 were not within the desirable fit range where an RMSEA value of $\leq .05$ is a close fit (MacCallum, Browne, & Sugawara, 1996). Therefore, the single factor model was tested to be a comparative model for the theoretical ten factor model solution. A single factor model obtained the following results: $\chi^2[1175] = 22156.11$, $p = 0.0$, RMSEA = .135 (90% CI = .13, .14), NNFI = .85, CFI = .86, AGFI = .48, which indicated the single factor model did not fit. All obtained global fit indices of NNFI, CFI, and AGFI values of the single factor model,
which are .85, .86, .48, respectively, indicate a poor fit. The RMSEA value of .135 in the single factor model also indicates a poor fit (e.g., RMSEA $\geq .10$).

Given the high correlations between the General Academic skills and Internal Motivation/Current = .69 (p <.01), Concentration and Internal Motivation/Current = .55 (p <.01), and General Academic Skills and Concentration = .55 (p <.01), an eight-factor model was tested. General Academic Skills, Internal Motivation/Current, and Concentration were combined to create one factor because of the high intercorrelations among three factors. The fit indices obtained from the eight factor model were $\chi^2[1147] = 10485.72$, p = 0.0, RMSEA = .091 (90% CI = .090, .093), NNFI = .92, CFI = .92, AGFI = .67. In sum, as Table 4.6 shown, the global fit indices and the RMSEA values of the ten factor model indicate a better fit in comparison with the other two alternative models in the Korean sample.
Table 4.5 Initial Interfactor Correlation Coefficients

<table>
<thead>
<tr>
<th>Factor</th>
<th>CD</th>
<th>IMC</th>
<th>EMF</th>
<th>GAS</th>
<th>LA</th>
<th>CO</th>
<th>EMC</th>
<th>PA</th>
<th>PIE</th>
<th>SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IMC</td>
<td>.27**</td>
<td>1</td>
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<td></td>
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<td>-.01</td>
<td>.38**</td>
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</table>

*Note.* CD = Career Decidedness; IMC = Internal Motivation/Confidence; EMF = External Motivation/Future; GAS = General Academic Skills; LA = Lack of Anxiety; CO = Concentration; EMC = External Motivation/Current; PA = Personal Adjustment; PIE = Perceived Instructor Efficacy; SO = Socializing.

*Correlation is statistically significant: p < .05 ** Correlation is statistically significant: p < .01
Table. 4.6 CFA Model Fit Statistics for Ten, One, and Eight Factor Models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$(df)</th>
<th>p-value</th>
<th>RMSEA</th>
<th>NNFI</th>
<th>CFI</th>
<th>AGFI</th>
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<td>10 factor-model</td>
<td>8858.27 (1130)</td>
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<td>.084</td>
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<td>.93</td>
<td>.70</td>
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<tr>
<td>One factor-model</td>
<td>22156.11 (1175)</td>
<td>0.000</td>
<td>.135</td>
<td>.85</td>
<td>.86</td>
<td>.48</td>
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<tr>
<td>8 factor-model</td>
<td>10485.72 (1147)</td>
<td>0.000</td>
<td>.091</td>
<td>.92</td>
<td>.92</td>
<td>.67</td>
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</tbody>
</table>

*Note. Indices are: $\chi^2$(df) = Chi-square statistic and degrees of freedom for test of model fit; p-value = p-value for test of model fit; RMSEA = the root mean square error of approximation; NNFI = the non-normed fit index; CFI = the comparative fit index; AGFI = the adjusted goodness of fit index*
CHAPTER FIVE

DISCUSSION

The purpose of the present study was twofold: First, to translate *the Academic Success Inventory for College Students* (ASICS; Prevatt et al., 2011) into Korean. Second, to test the cross-cultural validation including the reliability and validity of the Korean translated version of the ASICS with a sample of college students in South Korea in order to enhance our understanding of cross-cultural measurement generalizability, specifically in the measurements of academic success among college students. Given both the current lack of effective measurements of academic success in college students and the limited existing information regarding these measurements in non-Western cultures, the present study makes a significant contribution to research in the area of cross-cultural measurement of academic success in college students. Data analyses of the present study found empirical evidence for the reliability, criterion validity, convergent validity, discriminant validity, and factor validity of the Korean translated version of the ASICS with a South Korean sample.

This chapter includes a summary of the results and a discussion of the research questions and the empirical findings of the present study. Practical implications of the results for various professionals who serve college populations are emphasized. Furthermore, the limitations of the present study and recommendations for future research are presented.

**Summary of the Results**

A summary of the results is presented below. This section includes an interpretation and discussion of the empirical findings of the research questions of the ASICS scales’ reliability, criterion validity, convergent validity, discriminant validity, and factorial validity in the present study.

**Reliability**

To examine the reliability of the Korean translated version of the ASICS with a South Korean sample, the question was asked: “Do subscale scores on the Korean version of the
ASICS show evidence of internal consistency reliability?” The reliability coefficients of the present study were tested by using Cronbach’s alpha coefficients. In the present study, the ten Korean ASICS subscales were found to possess an overall internal consistency of .91, where an excellent range was defined as >.90 (George & Mallery, 2003). The coefficient alphas for the Korean-translated version of the ASICS’s subscales ranged from .65 to .91. These findings of high reliability were consistent with the ASICS data reported from the U.S. sample, where the coefficient alphas ranged from .62 to .93 (Prevatt et al., 2011). Future research should include other methods of testing the Korean version of the ASICS such as test-retest reliability or split-half reliability. The three subscales with lowest coefficient alphas all had only three items, which likely contributed to their lower internal consistency scores.

**Criterion Validity**

To test the criterion validity of the Korean translated version of the ASICS with a South Korean sample, the question was asked: “What are the relationships between students’ grades and the ten Korean ASICS subscales?” The results of criterion validity provided preliminary support for the use of the Korean ASICS. In the present study, correlational analysis between the ten scale scores of the Korean ASICS and cumulative GPAs of the Korean sample were conducted. Eight subscales were positive and showed statistically significant correlations with GPA at a level of .01, thus supporting criterion validity in predicting GPA with a Korean sample. Three of the ten subscales: General Academic Skills (GAS), External Motivation/Current (EMC), and Career Development (CD) were more highly associated with GPA, but effect sizes were relatively small (Cohen & Cohen, 1983). Two subscales of general academic skills and external motivation appear to confirm some Korean researchers’ findings that appropriate learning strategies and motivation have been positively correlated with academic success (Hwang, 1995; D. S. Lee, 2003; Moon & Kim, 2002; Y. Park, Kim, & Kim, 1991). Kim (2008) investigated undergraduate women students’ motivational regulation strategies using a sample of 1101 students at a women’s university and found that high achieving students used more intrinsic and extrinsic motivation, value of their work, control beliefs and internal efficacy. Park, Kim, and Kim (1991) investigated the relationship between study methods and academic success in Korean medical students and found that low achieving students did not use study methods
appropriately and had unrealistic perceptions of their grade. Similarly, Hwang (1995)’s study, based on 99 college students, found positive correlations between a methodic learning style and academic achievement in college students. Given the results of these studies, it seems apparent that one of the best things instructors can do to improve performance is to help students understand effective learning methods (e.g., learning skills, learning strategies and study habits). In addition, Lee (2003) also found a significant difference in learning styles and academic achievement between high and low achievers. Han (2004) found a relationship between types of motivation and self-determination continuum, self-efficacy, cognitive strategies and academic achievement. Kang, Lee, and Yang (2000) conducted a comparison study for the characteristics of academic performance between high-achievers and underachievers in college and found that underachievers were not satisfied with their college and major, and had negative attitudes toward their academic studies. Low motivation and self-efficacy, poor study habits, and poor strategies for learning and time management were associated with the underachievers.

In this present study, two of the ten subscales: Lack of Anxiety and Perceived Instructor Efficacy, were not statistically significant at the .01 level. This result differs from that of Park, Park, and Cho (1999)’s investigation of 489 Korean medical students, where academic failure was positively correlated with depression, self-discrepancy, test anxiety, and state anxiety. Therefore, caution is recommended in interpreting these results, and it would be useful to corroborate the present findings in future cross-cultural research by using standardized test scores in academic success.

**Convergent Validity**

To test the convergent validity of the Korean translated version of the ASICS with a South Korean sample, the following was asked: “What are the relationships between the subscale scores on the Korean version of the ASICS and the MSLQ?” Correlational analysis was conducted using subscale scores on the Korean ASICS and subscale scores on the MSLQ. In the present sample, the relationship between the MSLQ scales and the ten Korean ASICS subscales were examined using related subjects from the Korean ASICS and MSLQ. As hypothesized, a moderate correlation was found between Extrinsic Goal Orientation on the MSLQ and External Motivation/Current on the ASICS; and Effort Regulation on the MSLQ and General Academic
Skills on the ASICS. As hypothesized, a moderate negative correlation was found between Test Anxiety on the MSLQ and Lack of Anxiety on the ASICS. A moderately small correlation was found between Intrinsic Goal Orientation on the MSLQ and Internal Motivation/Confidence on the ASICS; Extrinsic Goal Orientation on the MSLQ and External Motivation/Future on the ASICS; Self-Efficacy for Learning and Performance on the MSLQ and Concentration on the ASICS; and Metacognitive Self-Regulation on the MSLQ and Concentration on the ASICS.

There appears to be strong evidence that ASICS and MSLQ questionnaires converge to measure constructs of academic success and motivation. The authors of the MSLQ (1991) categorized students’ motivation based on value (e.g., intrinsic/extrinsic goal orientation and task value), expectancy (e.g., controlling beliefs about learning and self-efficacy), and affect (e.g., test anxiety). The authors who developed the original ASICS (Prevatt et al., 2011) also did so in the belief that academic success is heavily based on motivation (e.g., self-regulation theory, achievement goal theory). Therefore it makes sense that most MSLQ items containing motivations would be moderately related to ASICS items which assess students’ motivations. The results of the current study can be used to inform further testing of the relationship between subscales on the ASICS and the MSLQ.

**Discriminant Validity**

To test the discriminant validity of the Korean translated version of the ASICS with a South Korean sample, the following question was asked: “Do high performing students and low performing students evidence differences on the ten subscales of the Korean ASICS?” A multivariate analysis of variance (MANOVA) was used to investigate differences in the ten mean scale scores between the high performing and the low performing groups. The results showed statistically significant differences between high performing students and low performing students on seven out of the ten Korean ASICS subscales: commitment to career goals; confidence in one’s capabilities for academic achievement; satisfaction with the level of challenge presented with performance; the combination of self-organizational strategies, achievement goals, study skills and aids, and effort; current external incentives to perform such as course grades, college graduation, parents, or approval of others; and socializing or drug use/drinking. The mean scores on these seven subscales indicated that high-performing students
had more positive functioning scores than low-performing students. The significant differences shown on these seven scales make sense because these areas of evaluation measure characteristics that might promote or hinder one’s academic performance.

However, the high-performing and low-performing Korean college students scored similarly on three of the subscales: level of anxiety, external motivation, and perceived instructors’ efficacy. Interestingly, the U.S. sample, also displayed non-significant differences in levels of anxiety and external motivation between honors and at-risk students (Welles, 2010). According to Welles (2010), these non-significant differences in anxiety between the two groups was possibly due to the composition of the sample, as almost 80% of the participants in her study were college freshmen. In the Korean sample, however, only 12.3% (n=120) of the participants were freshmen, making it ill-fit for Welles’ explanation. It is possible that anxiety serves a positive function in that it causes students to be concerned about their performance, and thus helps them to study more and be more prepared. This might explain the lack of significant differences in anxiety between high-performing and low-performing students. Future research should be done to investigate how anxiety levels may impact students’ academic performance at different stages in academic career.

In terms of external motivation for the future, the non-significant differences between high-performing and low-performing groups in the Korean sample are consistent with research on non-Western culture (Hau & Salili, 1996) that reveals that Korean students, like Chinese and Japanese students, generally attribute their success to intrinsic motivation and effort (Ho, Salili, Biggs, & Hau, 1999), instead of considering their extrinsic motivation for future a factor. Niles (1995) pointed out that Japanese students ascribe their academic success to the internalization of strong familial academic expectations, thus it follows that Korean high achieving students may share the belief that if they study hard, they will do well (Watkins & Biggs, 1996). This is contradictory to research findings in Western culture that external motivation is a crucial factor which predicts students’ academic success in college population (Covington, 2000; Robbins et al., 2004; Ryan & Deci, 2000a).

In terms of the non-significant difference in perceived instructor’s efficacy between groups in the Korean sample, this might again be attributed to how success and learning are conceived of Asian culture. Watkins and Biggs (1996) mentioned that for Asian students,
learning is believed to depend upon their own effort. In the U.S., college students who receive better feedback and have more positive interactions with faculty may feel motivated by those interactions, and students may then attribute their academic success or achievement as Tinto (1993) and Graunke and Woosley (2005) found; however, in Asian culture, college students may be more likely to charge their academic success to their own endeavor.

**Factorial Validity**

To test the factorial validity of the Korean translated version of the ASICS with a South Korean sample, the following two questions were asked: “What are the relationships among the ten Korean ASICS subscales?” and “Is the ten-factor model solution of the Korean ASICS consistent with the factor structure of the original English version of the ASICS?” In order to examine the relationships among the ten Korean ASICS subscales, Person product moment correlations among the ten Korean ASICS subscales were computed. In the Korean sample, highest correlations were found between Internal Motivation/Current and General Academic Skills, Internal Motivation/Current and Concentration, and General Academic Skills and Concentration. Previous research found that

Students who have intrinsic motivations and interests tend to challenge themselves for learning, to enjoy their learning activities, to engage themselves in making more effort to learning, to utilize their acquired learning skills, and to have more self-confidence about their skills and abilities (Zimmerman, 1994). However, the strong correlation among these three factors—internal motivation, general academic skills, and concentration—remains unexplained. Future research to examine the relationships among these three variables with a Korean sample is recommended.

Because of the high correlations between General Academic skills and Internal Motivation/Current, Concentration and Internal Motivation/Current, and General Academic Skills and Concentration, these three subscales were combined to create an eight-factor model, which was also tested, as was a single factor model for comparative purposes. In terms of factor structure of the ASICS with a Korean sample, the results of the confirmatory factor analysis of the ten-factor model, the eight-factor model and the single factor model of the Korean ASICS indicated that the ten factor model of the ASICS was the best fit. The present results suggest that
the scores from ten factor model version of the Korean ASICS provide preliminary support for the use of a Korean translated version of the ASICS in South Korea and for future research.

**Practical Implications**

In this section, implications for practice and research will be discussed.

**Implications for Practice**

Although the dropout rate of college students from two-year college and four-year universities in South Korea (7.3% in 2008) is not as high as the dropout rates are in the United States (approximately 40%), the number of students dropping out or stopping out of college in South Korea has been increasing. In South Korea, the decision to leave college means not only likely economic harm to the individual choosing to drop out (S. Y. Kim, 2007) but also the loss of income for the college, and when multiplied enough to decrease attendance by a significant margin, can mean the threat of colleges being shut down. Further, Hau and Salili (1996) have mentioned, academic success in college in South Korea is very important for because of traditional value orientations of filial piety in education (i.e., making one’s parents proud), so dropping out can cause discord within the family and in the family’s interactions with the community as well. The Korean version of the ASICS will be very useful for students at risk when deciding whether to seek professional help. The Korean translated version of the ASICS can be also help academic advisors, student counselors, and professors in Korea when referring at risk students to various campus resources or providing interventions in the students’ areas of concern. The Korean version of the ASICS can be particularly beneficial for first year students who are struggling with their academic performance by alerting test-givers to potential problems before the students face the prospect of flunking out of college. The following suggestions for practice on each subscale of the original ASICS which were suggested by Prevatt et al. (2011) should also apply to the Korean college culture: Students who score low on Career Decidedness, might be referred to counseling center in order to explore the career objectives relevant to their majors, and possible career choices and options (Prevatt et al., 2011). Career services in South Korean colleges function more as a bridge between recruiters and students looking for jobs. If students score low on Internal Motivation/Confidence, Socializing, Lack of Anxiety, and
Personal Adjustment, students may be referred to the college counseling center to explore any personal issues which hinder their academic performance (Prevatt et al., 2011). Students who score low on General Academic Skills, would benefit from attending a workshop or seeking center for teaching and learning which might offer instruction on general academic skills, time management, organization and planning, and test-taking skills (Prevatt et al., 2011). It should be noted, however that college students in South Korea may need greater encouragement to seek help in learning these kinds of academic skills because it is often assumed by parents and instructors that these skills have been acquired before had not been acquired, contrary to what they might assume, instructors need to encourage students to take steps to improve their skills. Students who have low scores on Concentration, might benefit from further assessment and psychological testing consultation in order to determine whether they have attention deficit or hyperactivity issues which might negatively impact their academic success (Prevatt et al., 2011). In the present study, among 975 students, only 11 students presented with problems with attention deficit and hyperactivity issues and only 5 students presented learning disabilities. Therefore, services for assessing college students’ problems with attention deficit and hyperactivity issues as well as learning disabilities should be more accessible in South Korea.

**Implications for Research**

The findings of the current study may provide a preliminary reference for the first use of a translated version of the ASICS as a potential prescreening tool for at-risk college students in South Korea. Findings need to be carefully interpreted when gathered from local populations in Korea. Future researchers may want to replicate the study using additional samples in Korea. During this process, the sample needs to be more comprehensive, encompassing a spectrum of demographics such as age, year in college, background and gender, as this would more closely reflect the eventual Korean target population for the translated version of the ASICS.

**Limitations**

The present study sought to translate the ASICS, a multifaceted instrument for measuring academic success in college students, into Korean, and to cross-culturally examine the reliability and validity of the Korean translated version compared to the original ASICS with a U.S. sample.
However, several possible threats to internal validity and external validity may exist when interpreting the results and implications of the present study.

**Threats to Internal Validity**

A number of items may cause a threat to internal validity of the present sample. First, the volunteer sampling methods of the present study may have contained some selection bias. For example, 12.3% of the participants (n=120) were freshmen, while 36.5% of participants were sophomores, making it impossible to generalize the study to all Korean college students. Further, during the data collection, some of freshmen did not report their GPAs because it was their first semester in college, whereas other freshmen had completed their first year. A second source of threat to internal validity are certain historical and environmental factors such as the fact that data collection occurred during varied points in the universities’ semesters, including home coming day, festivals, and mid-term exams. Third, demand characteristics might also influence internal validity since the Korean ASICS and the MSLQ have high face validity (e.g., academic success, motivation, and academic achievement), which is a potential threat to the internal validity. Fourth, as Wells (2010) reported, the psychometrics of the measures might also threaten the internal validity because of the limited number of items on certain subscales of the Korean ASICS such as lack of anxiety, external motivation/current time, and personal adjustment, which, as in the original AISCS, contain only three items apiece.

Future research will ideally consider a Korean college sample representative of the target population in terms of participants’ demographics, social economic status, locations of schools, and important social characteristics.

**Threats to External Validity**

The presence of potential threats to internal validity can call external validity into question. Since, in this current study, there are several threats to internal validity such as selection bias, history and environmental factors, demand characteristics, and psychometrics, there are possible threats to the external validity as well. In addition, the results shown in the present study may not remain constant over time, because the nature of students’
intrinsic/extrinsic motivation, personal adjustment, and/or the students’ perception of instructors’ efficacy may change over time.

**Suggestions for Future Research**

Given the results of the current study, future research is necessary to provide further cross-cultural empirical evidence for the reliability and construct validity of the model and confirmation of structure of the Korean ASICS. In terms of reliability, future research should include other methods of testing the Korean version of the ASICS, such as test-retest reliability or split-half reliability. Further, a clear conceptual definition of academic success is preliminary for proper interpretation of results in any cross-cultural validation study of the ASICS. More comprehensive analysis would be required to develop an integrated model by using item response theory with a Korean sample. Further research with samples from different student populations in other Asian countries (e.g., Japan, China, or Singapore) which share similar Asian cultural background and values in terms of learning and motivation would be beneficial. If the ASICS could be translated into different Asian languages other than English (e.g. Japanese, Chinese, etc.), it would be helpful to conduct more cross-cultural comparisons in order to improve the generalizability of the original ASICS.
APPENDIX A:
IRB APPROVAL LETTER
Office of the Vice President For Research  
Human Subjects Committee  
Tallahassee, Florida 32306-2742  
(850) 644-8673, FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 12/2/2010

To: Jiyoon Lee

Address: 307 Stone Bldg., Florida State University, Tallahassee, FL 32306-4453  
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research  
A Translation and Cross-cultural Validation of the Academic Success Inventory for College Students

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR Â§ 46.110(7) and has been approved by an expedited review process.

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

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 11/29/2011 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.
By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

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

Cc: Frances Prevatt, Advisor [fprevatt@fsu.edu]
HSC No. 2010.4791
Informed Consent Form

I willingly and voluntarily and without element of force or coercion, agree to be a participant in the research project entitled “A Translation and Cross-cultural Validation of the Academic Success Inventory for College Students.”

I understand that this research is being conducted by Jiyoung Lee, a doctoral student researcher at Florida State University, supervised by Frances Prevatt, Ph.D., a Professor in the College of Education at Florida State University. I understand that the purpose of the research project is to validate the effectiveness of a Korean translated version of the Academic Success Inventory for College Students (ASICS) as a screening tool of factors which influence college students’ academic performance.

I understand that I will be asked to complete a survey that will take approximately 15 minutes to complete. The Academic Success Inventory for College Students is an educational test that is related to the motivational factors that might influence how well I do in school. The survey includes questions such as whether I have identified a career I wish to pursue, how interested I am in my coursework, how confident I am in my abilities, my study skills and ability to concentrate, things that motivate me to get good grades, such as my parents or keeping a fellowship, and even whether I think I spend too much time partying instead of studying.

I understand and I will not receive any compensation or payment for participation in this study. I also understand my participation in this research is totally voluntary and there are no known risks involved with this study. I understand I can decide to stop participating at any time. I understand my replies will be anonymous, that this consent form will be separated from any data and my name will not appear on any of the results. To ensure confidentiality, to the extent allowed by law, records will be kept private and will be identified by code numbers only. Research records will be stored securely and only researchers will have access to the records.

I understand that participation is completely voluntary and my decision as to whether or not to participate will not affect my current or future relations with the university. There will be no penalty or loss of benefits if I choose to not participate in this research study or if I choose to withdraw. I understand I have been given the right to ask and have answered any questions regarding this study.

I understand that I may contact Dr. Frances Prevatt, Florida State University, 1-850-644-9445, fprevatt@fsu.edu, or Jiyoung Lee, Florida State University. with any questions regarding this research. If I have questions about my rights as a participant in this research, or if I feel I have been placed at risk, I can contact the FSU IRB at 2010 Levy Street, Research Building B, Suite 276, Tallahassee, FL, 32306-2742, or 850-644-8639, or by email at humansubjects@magnet.fsu.edu.

I have read and understand this consent form. I have been given an opportunity to ask questions and have received answers. I consent to participate in this study.

First and Last Name ___________________________ Today’s Date ___________

Signature ___________________________ Today’s Date ___________
APPENDIX C:
INFORMED CONSENT FORM IN KOREAN
연구 참가 동의서

본인은 어린 감압이나 강요에 따르지 않고 자발적으로 "한국판 대학생 학업 성공 측정도구의 변역과 문화적 타당성 연구"에 참여하는 것을 동의합니다.

본인은 본 연구가 플로리다 주립대학 박사과정 학생 연구자인 이여용과 Frances Prevatte 교수에 의해 진행되고 있음을 인지합니다. 본인은 본 연구의 목적이 한국판 대학생 학업 성공 측정도구가 대학생의 학업수행에 영향을 미치는 요인을 효과적으로 측정하는 것이 연구의 목표를 수행하는 것입니다.

본인은 실험사에 담을 하는데 약 15분의 시간이 소요될 것임을 알고 있습니다. 대학생의 학업 성공 측정도구는 학업수행에 영향을 미치는 둥기 요인에 관련된 교육적인 결과입니다. 이러한 요인들은 진로를 결정하는데, 덜마, 수업과목에 관심이 있는 것, 자신의 공부방법이나 집중력, 능력에 자신이 있는 것, 좋은 성적을 거두는데 영향을 미치는 둥기요인 등이 많은데, 혹은 주부보다는 노는다나 너무 많은 시간을 소비하는 것은 아닌디에 결합할 것입니다.

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성명____________________ 남자____
생년월일__________________
시행____________________ 남자____

FSU Human Subjects Committee Approved 11/30/10. Void after 11/29/11 HSC# 2010-4791

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APPENDIX D:

INSTRUMENTS IN ENGLISH
Demographic Information

1. Age: ______________

2. What is your gender? _____1=Female, _____2=Male

3. Estimated Overall College GPA: _______/4.0

4. Year in School: _____1=Freshman, _____2=Sophomore, _____3=Junior, _____4=Senior

5. Major: _____1=Liberal Arts _____2=Education _____3=Science _____4=Social Science
________5=Business _____6=Engineering _____7=Medical School _____8=Law School
________9=Music/Painting _____10=Other

6. School name: ____________________________

7. Have you ever been diagnosed with ADHD? _____1=Yes, _____2=No

8. Have you ever been diagnosed with a learning disability? _____1=Yes, _____2=No

9. Approximately what PERCENTAGE of your total college expenses (tuition, room and board, books, daily living expenses) do you personally pay for by working, borrowing money (such as financial aid or student loans) or out of your own personal savings? Do not count expenses that are paid for by your parents, by a trust fund, or by a scholarship. The value must be between 0 and 100, inclusive. ____________________________

10. How many hours per week do you spend working at a job for pay? ____________ Hours

11. Where do you live now? _____1=Home _____2=Residence Hall (On-campus)
______3=Off-Campus _____4=Other

12. What was your High School GPA? ____________
The Academic Success Inventory for College Students
(ASICS; Prevatt, et al., 2011)

Remember there are no right or wrong answers, just answer as accurately as possible.

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Disagree</th>
<th>2 Moderately Disagree</th>
<th>3 Slightly Disagree</th>
<th>4 Neutral</th>
<th>5 Slightly Agree</th>
<th>6 Moderately Agree</th>
<th>7 Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I worked on assignments in this class even if they were hard, boring, or ones I disliked.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Personal problems kept me from doing well in this class</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>It was important to me personally to get a good grade in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>It was easy to keep my mind from wandering in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>I was nervous for tests in this class even when I was well prepared.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>I studied the correct material when preparing for tests in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>I had an easy time concentrating in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>I got satisfaction from learning new material in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>I needed to do well in this class to get a good job later on.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>I worked hard in this class to prove to myself I could get a good grade.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>I enjoyed the challenge of just learning for learning's sake in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>I felt confident I could understand even the most difficult material in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>I was pretty sure I could make an A or B in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>I tried everything I could to do well in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>15</td>
<td>Sometimes I parted when I should have been studying for this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>I worked really hard in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>This class was very interesting to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>18</td>
<td>Studying for this class made me anxious.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>I had a hard time concentrating in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>My grades in this class suffered because of my active social life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>Sometimes I slacked off in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>22</td>
<td>I knew that if I worked hard, I could do well in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>23</td>
<td>This class will be very useful to me in my career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>24</td>
<td>I worried a lot about failing this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>I got easily distracted in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26</td>
<td>I was disappointed with the quality of the teaching in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>27</td>
<td>I worked hard in this class so I wouldn't disappoint others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>28</td>
<td>I kept on a good study schedule in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29</td>
<td>The instructor in this class was not effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Question</td>
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</tr>
<tr>
<td>I would have done much better in this class if I didn’t have to deal with other problems in my life.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>It was important to get a good grade in this class for external reasons (my parents, a scholarship, university regulations),</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I worked hard in this class because I wanted others to think I was smart.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I would have done better in this class if my instructor were better.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I was pretty sure I would get a good grade in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I felt pretty confident in my skills and abilities in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I worked hard in this class because I wanted to understand the material.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I got anxious when taking tests in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I paid attention in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I studied a lot for this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I was able to pick out the main, important ideas in lectures and on tests in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I think I used good study skills when working in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>The instructor in this class really motivated me to do well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I enjoyed attending lectures in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Anything I learned, I learned on my own. The instructor in this class was not a good teacher.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I got behind in this class because I spent too much time partying or hanging out with my friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>This class is important to my future success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>This class was very boring to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I skipped this class a lot.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I needed good grades in this class to keep up my GPA.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I had some personal difficulties that affected my performance in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I think in the future I will use the material I learned in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I worked hard in this class because I need to get good grades.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I was calm when taking tests in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Sometimes my drinking behavior interfered with my studying.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I made good use of tools, such as planners, calendars, and/or organizers in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I used goal-setting as a strategy for this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I was good at setting specific homework goals in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I was well organized in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am certain about what occupation I want after I graduate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I know what I want to do after I graduate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am having a hard time choosing a major.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am certain that my major is a good fit for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I wanted to do well because of my parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Motivated Strategies for Learning Questionnaire
(MLSC; Pintrich, Smith, Garcia, & McKeachie, 1991)

The following questions ask about your motivation for and attitudes about this class. Remember there are no right or wrong answers, 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 and 7 that best describes you.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Very true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all true of me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. In a class like this, I prefer course material that really challenges me so I can learn new things.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. If I study in appropriate ways, then I will be able to learn the material in this course.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. When I take a test I think about how poorly I am doing compared with other students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>4. I think I will be able to use what I learn in this course in other courses.</td>
<td>1</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. I believe I will receive an excellent grade in this class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6. I'm certain I can understand the most difficult material presented in the readings for this course.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7. Getting a good grade in this class is the most satisfying thing for me right now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8. When I take a test I think about items on other parts of the test I cannot answer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>9. It is my own fault if I don't learn the material in this course.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>10. It is important for me to learn the course material in this class.</td>
<td>1</td>
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</tr>
<tr>
<td>11. The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.</td>
<td>1</td>
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<td>4</td>
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</tr>
<tr>
<td>12. I'm confident I can learn the basic concepts taught in this course.</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>13. If I can, I want to get better grades in this class than most of the other students.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>14. When I take tests I think of the consequences of failing.</td>
<td>1</td>
<td>2</td>
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<td>6</td>
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</tr>
<tr>
<td>15. I'm confident I can understand the most complex material presented by the instructor in this course.</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>16. In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.</td>
<td>1</td>
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</tr>
<tr>
<td>17. I am very interested in the content area of this course.</td>
<td>1</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>18. If I try hard enough, then I will understand the course material.</td>
<td>1</td>
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<tr>
<td>19. I have an uneasy, upset feeling when I take an exam.</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>20. I'm confident I can do an excellent job on the assignments and tests in this course.</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>21. I expect to do well in this class.</td>
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<td>2</td>
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<td>7</td>
</tr>
<tr>
<td>22. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>23. I think the course material in this class is useful for me to learn.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>24. When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>25. If I don't understand the course material, it is because I didn't try hard enough.</td>
<td>1</td>
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<td>7</td>
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<tr>
<td>26. I like the subject matter of this course.</td>
<td>1</td>
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<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
27. Understanding the subject matter of this course is very important to me.  
28. I feel my heart beating fast when I take an exam.  
29. I'm certain I can master the skills being taught in this class.  
30. I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.  
31. Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.  
32. When I study the readings for this course, I outline the material to help me organize my thoughts.  
33. During class time I often miss important points because I'm thinking of other things.  
34. When studying for this course, I often try to explain the material to a classmate or friend.  
35. I usually study in a place where I can concentrate on my course work.  
36. When reading for this course, I make up questions to help focus my reading.  
37. I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do.  
38. I often find myself questioning things I hear or read in this course to decide if I find them convincing.  
39. When I study for this class, I practice saying the material to myself over and over.  
40. Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone.  
41. When I become confused about something I'm reading for this class, I go back and try to figure it out.  
42. When I study for this course, I go through the readings and my class notes and try to find the most important ideas.  
43. I make good use of my study time for this course.  
44. If course readings are difficult to understand, I change the way I read the material.  
45. I try to work with other students from this class to complete the course assignments.  
46. When studying for this course, I read my class notes and the course readings over and over again.  
47. When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.  
48. I work hard to do well in this class even if I don't like what we are doing.  
49. I make simple chart, diagrams, or tables to help me organize course material.  
50. When studying for this course, I often set aside time to discuss course material with a group of students from the class.  
51. I treat the course material as a starting point and try to develop my own ideas about it.  
52. I find it hard to stick to a study schedule.  
53. When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions.  
54. Before I study new course material thoroughly, I often skim it to see how it is organized.  
55. I ask myself questions to make sure I understand the material I have been studying in this class.  
56. I try to change the way I study in order to fit the course requirements and the instructor's teaching style.
<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>57. I often find that I have been reading for this class but don't know what it was all about.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>58. I ask the instructor to clarify concepts I don’t understand well.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>59. I memorize key words to remind me of important concepts in this class.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>60. When course work is difficult, I either give up or only study the easy parts.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>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 this course.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>62. I try to relate ideas in this subject to those in other courses whenever possible.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>63. When I study for this course, I go over my class notes and make an outline of important concepts.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>64. When reading for this class, I try to relate the material to what I already know.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>65. I have a regular place set aside for studying.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>66. I try to play around with ideas of my own related to what I am learning in this course.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>67. When I study for this course, I write brief summaries of the main ideas from the readings and my class notes.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>68. When I can’t understand the material in this course, I ask another student in this class for help.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>69. I try to understand the material in this class by making connections between the readings and the concepts from the lectures.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>70. I make sure that I keep up with the weekly readings and assignments for this course.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>71. Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>72. I make lists of important items for this course and memorize the lists.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>73. I attend this class regularly.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>74. Even when course materials are dull and uninteresting, I manage to keep working until I finish.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>75. I try to identify students in this class whom I can ask for help if necessary.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>76. When studying for this course I try to determine which concepts I don’t understand well.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>77. I often find that I don’t spend very much time on this course because of other activities.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>78. When I study for this course I set goals for myself in order to direct my activities in each study period.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>79. If I get confused taking notes in class, I make sure I sort it out afterwards.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>80. I rarely find time to review my notes or readings before an exam.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>81. I try to apply ideas from course readings in other class activities such as lecture and discussion.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
개인정보

본 질문지는 학생의 개인정보를 알아보기 위한 것입니다. 본 자료는 비밀보장이 필요이며 안전한 곳에 보관이 될 것입니다.

1. 나이: _________________

2. 성별: ___1=여자, ___2=남자

3. 대학교 학점 (GPA): ________/4.5
   또는 ________/4.3
   또는 ________/4.0

4. 학년: ___1=대학교 1학년, ___2=대학교 2학년, ___3=대학교 3학년, ___4=대학교 4학년

5. 전공: ___1=인문학 ___2=사회과학 ___3=자연과학 ___4=어학 ___5=경영학 ___6=공학 ___7=의학 ___8=법학 ___9=음악/미술 ___10=기타

6. 학교명: ___________________

7. 주의력 결핍 과잉행동장애 (ADHD) 진단을 받은 적이 있습니까?: ___1=있다, ___2=없다

8. 학습장애 (Learning Disability: LD) 진단을 받은 적이 있습니까?: ___1=있다, ___2=없다

9. 학비는 어떻게 조달하십니까? 각 항목당 %로 표시해주세요.
   ___1=자가비, ___2=부모님, ___3=학자금 대출, ___4=장학금 ___5=기타

10. 일주일에 돈을 벌기 위해 몇 시간 일하십니까? __________ 시간

11. 거주지: ___1=자택 ___2=기숙사 ___3=하숙/차취 ___4=기타

12. 고등학교 내신 등급: ______________
대학생의 학업성공도 (ASICS; Prevatt, et al., 2011)

올고 그론 달이 없습니다. 자 문항을 잘못이보시고 다음 문항들 중 자신에게 해당하는 문항을 고르세요.

<table>
<thead>
<tr>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>매우 그렇지 않다</td>
<td>그렇지 않다</td>
<td>약간 그렇지 않다</td>
<td>보통이다</td>
<td>약간 그렇다</td>
<td>그렇다</td>
<td>매우 그렇다</td>
</tr>
</tbody>
</table>

1. 나는 이 과목의 숙제가 어렵거나 지겹거나 심한 간에 관계없이 했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
2. 나의 개인적인 문제들은 이 과목을 악하게 해버리는 방해가 되었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
3. 이 과목에서 좋은 성적을 얻는 것은 개인적으로 나에게 중요한 일이었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
4. 이 과목에서도 잘 성취할 수 있는 것은 필요하다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
5. 내가 아무리 잘 준비해더라도 이 과목의 시험을 보는 것은 나를 걱정시켰다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
6. 이 과목에 대해 겸비할 때 나는 적절한 자료로 공부했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
7. 나는 이 과목에서 집중하는 것이 쉽었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
8. 이 과목에서 새로운 자료를 배우는 것은 나에게 한층을 주었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
9. 나중에 좋은 점을 가지고기 위해 나는 이 과목을 잘하는 것이 필요했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
10. 나는 이 과목에서 좋은 성적을 낼 수 있다는 것을 증명하기 위해 열심히 공부했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
11. 나는 이 과목에서 배운다는 것을 부정적을 증가했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
12. 나는 이 과목에서 가장 어려운 내용을 이해할 수 있다는 것에 자극을 느꼈다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
13. 나는 이 과목에서 A나 B를 받을 수 있다고 확실히다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
14. 나는 이 과목에서 배우할 수 있는 모든 것을 시도했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
15. 나는 가끔 이 과목을 열심히 공부해야 할 때 놓았다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
16. 나는 이 과목을 정한 열심히 했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
17. 이 과목은 나에게 정신적으로 좋았다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
18. 이 과목을 공부하는 것이 걱정스러웠다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
19. 나는 이 과목에 집중하는 것이 어려웠다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
20. 나의 향상된 사회활동은 내가 이 과목에서 좋은 성적을 얻는 데 어려웠다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
21. 때로는 나는 이 과목에 대한 몹시나나 왔다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
22. 때로는 이 과목에 대해 내가 이 과목에서 더 잘 할 수 있었다는 것을 얻었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
23. 이 과목은 내 건강에 아주 유용할 것이었다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
24. 나는 이 과목에서 난재할까봐 가장 많이 했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
25. 나는 이 과목에서 쉽게 만났다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
26. 나는 이 과목을 강의시간에 실망했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
27. 나는 이 과목을 열심히 공부했으면 다른 사람들도 실망시키지 않을 것이다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
28. 나는 이 과목에서 좋은 공부를 올렸다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
29. 이 과목의 교수님이 효과적으로 가르쳐주지 못했다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
30. 내가 이 과목에 대한 문제들이 없었더라도 이 과목에서 더 잘 할 수 있었을 것이다. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
31. 이 과목에서 좋은 성적을 거두는 것은 다른 이유들 (예로 부모님, 강학금, 학칙) 때문에 중요한데요.
32. 나는 다른 사람들이 나를 놀리라고 생각하기를 아꼈기 때문에 교과목을 열심히 했어요.
33. 만약 교수가 나를 경솔하게 يجعل다면 이 과목을 더 잘 할 수 있었을 것이다.
34. 나는 이 과목에서 좋은 성적을 얻을 것이라 아주 확실히다.
35. 나는 이 과목에서 대중의 방법과 능력에 아주 자신감 있었다.
36. 나는 수업 내용을 이해하고 있었기 때문에 열심히 했다.
37. 나는 이 과목을 시험 본 때 찬반했어요.
38. 나는 이 과목에 집중했던.
39. 나는 이 과목을 열심히 공부했어요.
40. 나는 이 과목에서 강의와 시험에 나오는 기본적이고 중요한 개념을 파악할 수 있었다.
41. 나는 이 과목을 공부할 때 적절한 방법으로 공부했다고 생각한다.
42. 이 과목의 교수님은 나에게 강한 학습 동기를 부여해 주었다.
43. 나는 수업에 참석하는 것이 즐거웠다.
44. 내가 배운 것은 나 혼자 틀림없던 것이다. 이 과목의 선생님은 좋은 분이 아니었다.
45. 나는 다른 친구들 사이에서 많은 시간을 써 마시거나 놀아서 이 과목에서 뒤자겠다.
46. 이 과목은 내 미래 성공에 중요하다.
47. 이 과목은 나에게 아주 매력적이다.
48. 나는 이 과목 수업을 아주 많이 들었다.
49. 나는 학점을 유지하기 위해 이 과목에서 좋은 성적을 얻는 것이 필요했다.
50. 나는 이 과목의 성격에 영향을 미친 개인적인 문제들이 있었다.
51. 나는 이 과목에서 배웠던 내용을 미국에도 사용할 것이다.
52. 나는 좋은 성적을 얻기 위해 이 과목에서 열심히 했다.
53. 나는 이 과목에 자본하게 시험 떴다.
54. 기간은 내 음주습관에 대한 공부에 빠져있고 했다.
55. 나는 이 과목에서 개별별, 담연, 일정표 같은 도구들은 잘 사용했다.
56. 나는 이 과목에서 전략적인 목표 설정을 했다.
57. 나는 이 과목에서 구체적인 과제수행 목표를 잘 세웠다.
한국판 MSLQ (Kim, 2006)

이 질문은 여러분의 학습에 대한 동기와 과제 수행 시 사용하는 학습전략에 대해 조사하고 자주조절하면서 자동으로 설정과 단절을 적용하기 위한 것입니다. 각 문항을 읽고 자신의 정소 행위나 생각과 일치하는 정도에 따라 해당 항목에 '○' 표를 하십시오. 이 문항들은 정답이 있는 것이 아니므로, 손가락이나 경험이 있는 생각을 표시해 주시면 됩니다. 이 설문지는 연구목적이 아니에 사용되지 않을 것입니다. 한 문항도 빠지지 않게 하여 주시면 감사하겠습니다.

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1. 나는 새로운 것을 학습할 수 있는 도전적인 수업을 선호한다.
2. 적절한 방법으로 학습한다면, 어떤 학습 자료라도 효과적으로 학습할 수 있는 것이다.
3. 시험을 보는 중에도 나는 다른 학생과 비교해서 내가 얼마나 시험을 못 볼지에 대해 생각한다.
4. 특한 강의에서 배운 것을 다른 수업에서 사용할 수 있으리라 생각한다.
5. 특한 강의에서 중인 신학을 받을 것이라 믿는다.
6. 특한 강의에서 계시되는 가장 어려운 학습 자료도 이해할 수 있다고 확신한다.
7. 선정한 수업에서 좋은 실력을 얻는 것이 지금 나에게 가장 중요한 일이다.
8. 시험 보는 중에 내가 답할 수 있었던 시험문항에 대해 생각한다.
9. 이번 학습 자료를 제대로 학습하지 못한다면, 나에게 잘못이 있는 것이다.
10. 특한 강의에서 학습 자료에 무엇인가 새로운 것을 학습하는 것이 중요하다.

11. 지금 나에게 가장 중요한 것은 전체 과정을 향상시키는 것이며, 어떤 수업을 선택하는 주관 이유는 다른 학습을 받기 위한 것이다.
12. 특한 강의에서 배운 기본적인 개념을 이해할 수 있다고 확신한다.
13. 잘 수 있다면, 나는 다른 학생들보다 좋은 성적을 받고 싶다.
14. 시험 보는 중에도 나의 결과가 나을 것에 대해 걱정한다.
15. 특한 강의에서 교수님이 계시하는 가장 복잡한 자료도 이해할 수 있다고 확신한다.
16. 배우기 어려워도, 나의 호기심을 자극하는 학습 자료를 선호한다.
17. 특한 강의의 내용이 매우 흥미롭다.
18. 중분히 노력하면, 대부분의 학습 자료를 이해할 것이다.
19. 시험 볼 때, 불안하고 조조하다.
20. 특한 강의에서 과제를 실패하여 수행할 수 있다고 확신한다.
21. 특한 강의에서 잘 할 것이라 기대한다.
22. 나는 수업내용을 정리하게 이해할 때 가장 만족스럽다.
23. 특한 강의에서 학습 자료를 학습할 수 있는 것이 중요하다고 생각한다.
24. 좋은 학습을 보장하지 않더라도 배운 것이 있는 수업을 선택한다.
25. 이론 학습 자료를 이해하지 못한다면, 중분히 노력하지 않았기 때문이다.
26. 특한 강의에서 목표를 달성하고 싶다.
27. 특한 강의의 수학에 이해하는 것이 내게는 매우 중요하다.
28. 시험 볼 때, 성장 막이 빠지는 것이 느껴진다.
29. 특한 강의에서 배운 기술들은 마음에 들 수 있다고 확신한다.
30. 나는 능력을 가질 때, 그들, 동료, 다른 사람들에게 보여주는 것이 중요하기 때문에 선택한 강의에서 잘하고 싶다.
31. 수업의 난이도, 교수, 나는 능력을 고려해 본 때, 특한 강의에서 잘 할 것이라고 생각한다.
32. 수업 자료를 읽을 때, 사고의 조합을 위해 자료의 개념을 잡는다.
33. 수업 시간에 다른 생각을 하기 때문에 주로 중요시 하는 것들, 놓친다.
34. 공부할 때, 같은 과목이나 다른 과목에게 학습 자료를 설명해 주리고 한다.
35. 항상 과제에 집중할 수 있는 장소에서 공부한다.
36. 학습 내용을 이해할 때, 읽은 부분에 대해 질문을 생각해 가면서 요지를 잊어버리고 있다.
37. 공부하기로 계획한 것을 기대하기에 전에 나타내지거나 지나쳐간다.
38. 수업 내용을 이해하기 위해 수업에서 들거나 읽은 자료를 스스로에게 질문해 본다.
39. 공부할 때, 나 자신에게 반복해서 학습 자료를 말하고 연습한다.
40. 수업 시간에 수업 자료를 이해하기 어려워도, 다른 사람의 도움 없이 혼자 해보려고 노력한다.
41. 학습 자료를 잃다가 혼동되는 부분이 있을 때, 되돌아가 이해하려고 노력한다.
42. 공부할 때, 나는 읽은 자료와 강의 노트를 함께 보고 가장 중요한 개념들을 갖추려고 한다.
43. 학습 강도를 위해 나의 공부시간을 잘 활용한다.
44. 수업 자료를 이해하기가 어려우면, 자료를 읽는 방법을 변화시킨다.
45. 과제를 완성하기 위해 다른 학생들과 함께 협력하는 편이다.
46. 공부할 때, 나는 반복해서 노트를 봐야할 것인가 검토자의 자료들을 읽는다.
47. 이번 이론, 명식, 결과가 강의나 학습 자료에서 제시되었을 때, 그것을들을 지지하는 토거를 찾아본다.
48. 선택한 수업을 좋아하지 않더라도, 수업에서 열심히 하려고 한다.
49. 수업 내용을 조각하기 위해 간단한 자료, 다이어그램, 표를 만든다.
50. 수업을 들고 큰틀과 수업 내용을 토대하기 위해 시간을 따로 할애한다.
51. 학습 자료를 활용할 때 이라고, 학습 자료와 관련하여 나만의 아이디어를 반영시킨다.
52. 내가 가장 대로 공부 시간표를 제작하기 어렵다.
53. 공부할 때, 여러 주제(예를 들면 강의, 읽은 자료, 보도)의 자료를 종합한다.
54. 새로운 강과의 자료를 본격적으로 공부하기 전에 나는 그 자료가 어떻게 조작화가 있는지 놓아보기 위해 자주 돌아본다.
55. 수업 시간에 공부한 자료를 제대로 이해하는지를 확인하기 위해 스스로에게 질문을 한다.
56. 강과에서 요구하는 것과 교수님의 가르침은 스타일에 맞춰 공부하는 방법을 변화시킨다.
57. 나는 수업 준비를 위해 자료를 잃어버리지 않도록 잊고 난 후, 읽은 내용이 무엇인지 모르면 파악하지 못한다.
58. 잘 이해되지 않은 개념들은 교수님에게 질문해 밀착해 한다.
59. 수업 내용 중 중요한 개념들을 기억하기 위해 핵심단어를 알아간다.
60. 수업 과제가 어렵다면, 도와주거나 심은 부분만 공부한다.
61. 공부할 때, 학습 자료를 바로 끝까지 읽기보다는 자료에서 학습하려고aisonng하는 것을 갖추고 주제를 생각해 본다.
62. 가장 나의 학습 강도의 개념과 다른 강의의 개념들을 연결시켜 본다.
63. 공부할 때, 수업에 전 노트를 집고 않고 중요한 개념들의 개요를 만든다.
64. 수업 자료들을 읽을 때, 이미 내가 알고 있는 자료와 연결해 본다.
65. 나는 일정한 강소에서 공부한다.
66. 수업시간에 학습한 것과 나 자신의 아이디어를 연결시켜 생각해 본다.
67. 공부할 때, 읽은 자료의 핵심 아이디어와 강의에서 언급된 개념들을 간단히 요약해서 쓴다.
68. 수업 시간에 이해하지 못한 내용은 다른 학생에게 질문한다.
69. 임원 자료와 강의의 개요를 사이를 연결시키면서 강과의 학습자료를
이해하려고 한다.
70. 야무 임의하 할 수임 자료와 과제를 빌리지 않고 해결한다.
71. 수업시간에 어떤 주의나 결론을 잊거나 들을 때 가능한 다른 대안들을
생각해 본다.
72. 수업 내용 중 주의 요소 목록을 만들고 목록들을 암기한다.
73. 나는 수업을 복제하지 않는다.
74. 수업 자료가 따분하고 홍미가 없더라도, 공부를 꾸준히 지속한다.
75. 필요하다면 도움을 요청할 수 있는 친구들을 찾으려고 한다.
76. 공부할 때, 내가 잘 이해하지 못하는 개념들을 확인하려고 한다.
77. 다른 활동 때문에 자유 학습에 충분한 시간을 주지하지 않는다.
78. 공부할 때, 학습활동을 계획적으로 하기 위해 스스로 목표를 정한다.
79. 수업시간에 노트를 기록하려고 하지만, 나중에 그것을 봐다 보면.
80. 시험 전에 노트나 임기자료를 복습할 시간이 거의 없다.
81. 한 강과의 임기 자료들을 다른 강의나 토론에 적용해 보이고 한다.
REFERENCES


Jiyoon Lee is a doctoral candidate in Combined Ph.D. program in Counseling Psychology and School Psychology at the Florida State University in Tallahassee, FL with an emphasis in Counseling Psychology. She is originally from Seoul in South Korea. She received her Bachelor’s and first Master’s degree in Educational Technology from Hanyang University in South Korea in 2000 and 2002. She earned her second Master’s degree in Counseling Ministries from Trinity International University in Deerfield, IL in 2004. She has completed an APA-accredited pre-doctoral internship at Purdue University Counseling and Psychological Services (CAPS) in 2011-2012. Her areas of research and clinical interests include learning problems associated with motivation, cross-cultural emphasis on human psychological issues associated with academic success, the quality of life of adolescents and college students, mood and anxiety disorders, cultural adaptation, adjustment to life transition, assessment and coaching for adult ADHD, career development, non-traditional college students, substance abuse, and multicultural issues.