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DEVELOPMENT AND INITIAL VALIDATION OF A MEASURE OF  
ATTRIBUTIONS FOR WRITING SUCCESS AND FAILURE

by

Mingying Zheng

A THESIS

Presented to the Faculty of  
The Graduate College at the University of Nebraska  
In Partial Fulfillment of Requirements  
For the Degree of Master of Arts

Major: Educational Psychology

Under the supervision of Professor Roger Bruning

Lincoln, Nebraska

August, 2012

# DEVELOPMENT AND INITIAL VALIDATION OF A MEASURE OF ATTRIBUTIONS FOR WRITING SUCCESS AND FAILURE

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University of Nebraska, 2012

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The purpose of this study was to develop and provide initial validation of an instrument to measure writing attributional style among college students, the Attributional Style Questionnaire for Writing (ASQ-W). A sample of 133 college students from a Midwestern university participated in the current study. A qualitative and quantitative mixed method study was conducted to report the perceived causes for writing success and failure and examine the internal consistency, discriminant validity, and predictive validity of the measure. Two other surveys—Liking Writing Scale (LWS) and Self-Efficacy for Writing Scale (SEWS)—also were administered to provide preliminary information on validity for the ASQ-W. Results of the qualitative study indicated that ability and effort were the two most frequently reported causes for writing success and failure. Results of the quantitative study indicated that the ASQ-W may be two-dimensional instead of three as predicted. Results also indicated that attributions for both writing success and failure were perceived as internal and controllable, while attributions for writing success were perceived as more stable than those for writing failure. The relationship between writing attributions and students' liking writing, students' writing self-efficacy, and students' writing performance were presented and discussed.

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## ACKNOWLEDGMENTS

It would not have been possible to write this thesis without the help and support of the kind people around me, to only some of whom it is possible to give particular mention here.

Above all, I would like to thank my husband Jingbo Chen and my son Yuyang Chen for their personal support and great patience at all times. My parents, brother and sisters have given me their unequivocal support throughout, as always, for which my mere expression of thanks likewise does not suffice.

This thesis would not have been possible without the help, support and patience of my adviser, Dr. Roger H. Bruning.

I would like to acknowledge the academic and technical support of the University of Nebraska-Lincoln and its staff, particularly the Office of Research and the Office of Graduate Studies for their support for this research, especially Ms. Rachel Wenzl and Ms. Terri Eastin. I also thank the Department of Educational Psychology and CLD faculty and staff for their support and assistance, especially Dr. Douglas F. Kauffman, Dr. Christy A. Horn, Dr. Matthew W Grady.

I am most grateful to Daniel Abbott for providing me with his IRB files and his advice.

I would like to thank Amanda Bleck, Kim Marxhausen, Kellie McGowan, Grant Orley, Houston Lester for their kindness, friendship and support.

Last, but by no means least, I thank all my friends for their support and encouragement throughout, some of whom have already been named.

For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

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## Chapter 1: Introduction

There is no doubt that writing is highly important to success, not only in academia (e.g., Lee & Boud, 2003) and in the professions, but in everyday life. It also is a highly complex cognitive task that often is intimidating to students (Bruning, Schraw, & Norby, 2010; Bruning & Horn 2000). It seems important, therefore, to understand how students interpret their writing performance and the explanations or *attributions* they provide for their writing successes and failures. With better understanding of these writing attributions, educators presumably can better and more efficiently help students improve their writing abilities and motivation to write.

Generally speaking, attributions refer to the explanations or inferences that people make about their successes and failures (Weiner, 1974). As research on attribution theory has grown, a number of measures have been developed to assess habitual ways that individuals assess their own successes and failures, their so-called *attributional style*. Different attributional styles may influence people to choose to complete the same tasks or assignments differently, and may also affect how they assess their performance in different ways (Szabo, 2006).

Although much work has been done with regard to attributions and attributional style in achievement-related domains, it is rare in the area of writing, especially in college academic writing. Very often, researchers and educators use the label “poor writers” (Harris, 1997) to define who struggle with academic writing tasks. Accordingly, different approaches used are primarily related to different instruction designs and instructional writing practices (Fernsten & Reda, 2011). These kinds of instructions in writing can subtly or overtly help struggling student writers generally improve their writing skills in



classroom environments. In many cases, however, college students are required to complete more discipline-specific writing tasks tied to specific academic tasks. At this point, many factors may affect college students' out-of-class writing success and failure. Further study of students' writing attributions and their writing attributional style becomes necessary.

### **Attributions and Writing**

Many studies have been done in studying attributions both in achievement-related (Russell, McAuley, & Tarico, 1987) and non achievement-related contexts (Mark, William, & Brewin, 1984). Other studies were focused on attributional styles in academic (Camgoz, Tektas, & Metin, 2008; Cortes-Suarez & Sandiford, 2008) and nonacademic situations (Kent & Martinko, 1995). No matter in achievement contexts or among academic studies on attributions, most attributional researches have been focused on global situations such as the analysis of attributions in interpersonal and achievement contexts (Peterson, et al., 1982), or intermediate levels such as the analysis of academic attributions in academic settings (Peterson & Barrett, 1987). Although some attributional researchers have switched their attentions to some more specific domains with college students as the participants (e.g., the analysis of students' attributions and attributional style in college algebra, Cortes-Suarez, 2008), and the analysis of the relationship between law school performance and students' attributional style, the study of students' attributions and attributional style in academic writing is rare.

In the single study that I found, Mayrath (2008) studied the attributions of productive authors in the field of educational psychology. He stated that four major categories of attributions attributed to these highly productive authors: collaboration,

passion/curiosity, research skills, and time management. Interestingly, the classification of these four categories didn't use the approach most attributional researchers typically use to identify different attributions (ability, effort, task difficulty, and luck). Also, the attributions identified by Mayrath are too ideal and unrealistic for college students as apprentice writers. A more basic and realistic study of college students' attributions for writing success and failure would be more valuable.

As mentioned, the only study I found on attributions and writing (Mayrath (2008) used the highly productive authors in the domain of educational psychology as the participants instead of the college students. Further, Mayrath's study did not utilize the attribution theory, which most attributional researchers may prefer to use when studying attributions and attributional style either in broad or specific domains, as his theoretical basis. My current study therefore was designed to explore attribution theory in the domain of writing toward the goal of better understanding the kinds of judgments that individuals make about their successes and failures in writing. Specifically, my goal was to develop and make an initial validation of a measure of attributions for writing success and failure. I wanted to explore how student writers think and report different causes for writing success and failure and to learn how the causes they report relate to their attributions in three dimensions. By analyzing these three dimensions, an assessment could be made of how different attributional styles may impact students' different expectancy for future actions, and how different attributional styles may relate to actual behaviors in writing-related situations. Further, an exploration on how attributions about writing relates to students' liking writing, self-efficacy for writing, and their actual writing performance as a writer was made.

## **The Current Study**

As indicated above, the primary goal of the current study was to develop and provide an initial test of a measure of attributions for writing success and failure. This goal was based on the need for a measure in academic setting of writing since writing is a crucial skill for students, especially to college students in academic settings and attributions generally have been shown to be important determiners of engagement and success in many other areas, but not as yet in writing. As a researcher, I hope I can inspire other educators to better understand their students by analyzing their varying writing attributional styles. On the basis of having information about their writing attributional styles, we presumably can provide the students with coaching about different approaches to writing or with retraining to change students' writing causal beliefs, behaviors, and emotions, and eventually improve or change their writing performance.

The first goal of the current study therefore was to explore the possible perceived causes of success and failure in writing. Although the perceived causes of success (Burger, Cooper, & Good, 1982; Cooper & Burger, 1980; Frieze, 1976, 1979; Frieze & Snyder, 1980) and the perceived causes of success and failure (Meyer, 1980; Meyer & Koelbl, 1982) have been investigated in different domains by numerous attributional researchers and have shown the dimensions of locus of causality, stability, and controllability, none of them investigated the perceived causes of writing success and failure. In current study, the possible perceived causes of writing success and failure were investigated and compared to the findings of other attributional researchers.

The present study utilized a newly developed scale, the Attributional Style Questionnaire-Writing (ASQ-W), and tested its reliability. The properties of reliability of

three subscales—locus of causality, stability, and controllability—were also evaluated by examining student responses to six hypothetical successful writing situations and six hypothetical unsuccessful situations.

Finally, preliminary study of the validity of the ASQ-W also was conducted. Specifically, the discriminant validity of the ASQ-W was examined by analyzing potential factors emerging from exploratory factor analysis of ratings of six success and six failure situations in three dimensions. The predictive validity of the ASQ-W was studied by examining its correlation to the Liking Writing Scale (LWS), the Self-efficacy for Writing Scale (SEWS), and to the level of individual writing performance that students reported in their English classes and non-English classes.

### **Research Questions**

Four research questions about the attributional style questionnaire for writing were posed in this study.

1. What categories of perceived causes do the student writers report for their writing success and failure?
2. At what levels, if any, (item-subscale, and subscales, or composite subscales) is the measure (ASQ-W) reliable?
3. Does the measure for measuring writing attributional style represent three dimensions—locus of causality, stability, and controllability?
4. Do scores on subscales of the ASQ-W correlate with students' liking writing, writing self-efficacy, and writing performance?

## **Chapter 2: Literature Review**

The following literature review will examine the logical and empirical analysis of the causal structure of attributions and describe different rationales and approaches to measuring attributional processes in different contexts. The review begins by defining and discussing the nature of the causal structure. Specifically, a definition of the causes will be provided and the difference between causes and reasons will be discussed. Next, along with the concept of causal attribution, the logical analysis of causal dimensions introduced by Weiner (1986) will be discussed. Weiner's one-cause-three-dimension model of attribution provides the theoretical basis for my proposed measure. Following this, a variety of different measures and/or scales of attributional styles will be discussed and evaluated. Finally, on the basis of these analyses, I will introduce the framework of the ASQ-W, which is the focus of the present study and a measure that I hope will provide a useful method to analyze and assess student writers' attributions and their different writing attributional styles. As it is further refined hopefully it can provide the basis for more detailed investigations of the perceived causal attributions in writing.

### **Causal Structure**

#### **Cause versus Reason**

As has been discussed in the first chapter, studying attributions always begins by asking the perceived causes for outcomes that individuals encounter in their lives. Therefore, attributional researchers typically like to ask a "why" question to the individuals as their first step when searching for causal attributions. In recent psychological literature, more and more researchers have contended that causes and reasons should be distinguished when studying attributions (see Buss, 1978; Locke &

Pennington, 1982; Tantam, 2002). In my current study, I used the “why” questions to invite student writers to identify the causes for their writing successes and failures.

According to Weiner (1986), *cause* refers to the same phenomenon as causal perception, causal attribution, and causal ascription. Braithewaite (1959) defined a cause as an answer to a “why” question regarding an outcome. The outcome can be either a success or a failure to an event or situation. Therefore the causal attributions are actual explanations (e.g., ability, effort, task difficulty, luck) made by perceivers or observers regarding a successful or failed event or situation. These causal attributions explain the relationship between an action and an outcome. Under the framework of casual attributions, it is presumed that the actions should have been made, therefore attributional researchers typically are more interested in the situations such as why individuals are doing well or poorly in their writing assignments, and not why individuals are doing their writing assignments or not; why individuals showed or failed to show up for appointments, and not why the appointments were set up for the individuals.

*Reasons*, according to Davidson (1963), are justifications for an action and thus may be a special kind of cause. For example, Mary accepted William’s invitation to a dinner by pointing out his sincerity although she didn’t know him very well. By contrast, causes need not justify an action (Locke & Pennington, 1982). In the above case, a friend of Mary (an observer) may explain Mary’s acceptance of William’s invitation is because Will resembles her (Mary’s) father, and Mary’s friend knew Mary loves her father and always tells her friend that she wants to date a man who looks like her father (This episode was adopted from the original one written by Weiner, 1986). This is not a justification for an intended action; instead, it is an antecedent of a particular occurrence.

Tantam (2002) pointed out that when people talk about causes of an outcome, they mean that these causes have certain properties. These properties can be internal/external, stable/unstable, and controllable/uncontrollable and make the outcome predictable. By contrast, when people talk about reasons, little guidance is connected to the outcome to the perceivers. Therefore, a cause is inferred or imposed by an attributor whereas a reason is not.

In current study, the term “cause” in the ASQ-W open-ended question part will always be used instead of the term “reason”. My goal is better understand connections between actions (antecedents) and outcomes (consequences) of the student writers in an academic writing context based on their reported causes of writing successes and failures.

### **Causal Explanations**

As has been described, attributions function to help us understand what causes people to behave in the way they do. The perceived casual attributions can then explain or predict the outcome of an action of the perceiver. The specific four categories of causes characterized by Weiner et al. (1971) have proven to be the most dominant in research on causal attributions conducted in achievement-related settings.

Early attributional research often had participants to rate only the four causes proposed by Weiner et al. (1971)—ability, effort, task difficulty, and luck—as the explanations of success and failure, while later attributional researchers generated more attributions by inviting participants to answer open-ended questions to explain the main causes of the outcome of an event. Elig and Frieze (1979), for instance, examined different methods of measuring casual explanations by using both open-ended and fixed-format questionnaires. They concluded that the fixed-format rating method seemed more

reliable in measuring the causal attributions for a given situation. But they also suggested that open-ended measures may be appropriate for novel situations. Adler (1980) used the percentage of importance method in his investigation of attributions and job satisfaction. Peterson et al. (1982) used the open-ended measures to ask participants to generate a cause themselves for each hypothetical event. Cortes-Suarez and Sandiford (2008) used the importance rating method in their investigation of attributions and college algebra. In addition to above mentioned methods, organizational researchers have also used a different method—forced-choice format—to ask participants to choose the most appropriate cause in a given situation.

No matter what methods the attributional researchers choose to use in investigating causal attributions, problems appear in one way or another. First, in all fixed-format methods, participants are limited in their choices to just a few causal explanations, which may not accurately assess the individual's real explanation for why an event or a situation took place. There also are some difficulties in using open-ended method to measure causal explanations, however. Since the possible explanations for causal attributions are not constrained, psychometric problems are almost certain to arise. No matter what choices are made as far as methods of measurement are concerned, the variety of methods used across different studies makes it extremely difficult to gather findings across studies in order to have a more complete understanding of the causal attributions in different domains.



## **The Logical Analysis of Causal Dimensions**

In order to test predictions from causal attributions, attributional researchers began to look beyond the specific causal explanations to the underlying causal dimensions (e.g., locus of control, stability, controllability).

Heider (1958) made the most fundamental distinction between causes. He stated that "...in common-sense psychology (as in scientific psychology) the result of an action is felt to depend on two sets of conditions, namely factors within the person and factors within the environment" (p. 82). These two categorized causes later were referred to as internal characteristics "inside" a person, and external features "outside" a person or in the surrounding environment. Rotter (1966) labeled these two categories as locus of control. Because a dimension of controllability will later be proposed, Weiner (1985) suggested the term "locus of causality" instead of the term "locus of control" to differentiate two dimensions. Empirical support for the locus dimension is fairly convincing (Sweeney, Anderson, & Bailey, 1986; Weiner, 1985). More specifically, in all seven empirical studies identified by Weiner (1985), six reported a locus dimension, which strongly supports the locus of causality as a primary dimension of perceived causality in studying attributions.

A second dimension was then proposed by Weiner et al.(1971). According to Weiner et al, among the internal causes of behaviors, some are fluctuating whereas others constant. For example, as Heider (1958) and Rotter (1966) had noted previously, ability is normally perceived as stable overtime while effort or mood are thought to be more variable, although they are all internal factors. Among the external causes, success or failure at an exam might be perceived as dependent on the difficulty of the exams or the

university's grading policy. If it was the former factor, this cause would fluctuate from time to time (e.g. students had a unreasonably difficult exam or paper), whereas if it was the latter, this cause would be relatively constant.

The stable-unstable dimension has received wide acceptance since its introduction by Weiner et al.(1971). Evidence supporting the validity of the stability dimension is also relatively convincing. Four of seven studies reviewed by Weiner (1985) clearly identified a stability dimension, and Sweeney, Anderson, and Bailey (1986) reported medium effect size (-0.25) for stability in studying depression. According to Weiner, stability dimension is the major determinant of expectancy shifts. Attributional researchers often use the stable-unstable dimension to predict individuals' expectancy to success of future tasks. If they attribute success to stable or constant causes, this will lead to high expectancy of future success; similarly, attributing failure to unstable or variable causes will also sustain expectancy of future success. For example, getting high grades (e.g., A) can be attributed to individuals' high writing abilities. Ability is a fairly stable factor in this situation. Getting high grades because of their abilities would make individuals expect continuous writing success in the future, and this expectancy will motivate them to continue working hard. Meanwhile, getting unsatisfactory grades (e.g. C) in writing tasks because of emergencies would not necessarily result in them being pessimistic of writing success in the future if emergencies happen rarely to the individuals. By contrast, if individuals attribute success to unstable causes (e.g., good luck) and failure to stable causes (e.g., inability) will have the opposite impact on their expectancies.

Although both locus of causality and stability are widely accepted by attributional theorists and researchers, controllability as the third attributional dimension was not received the same level of acceptance. In Weiner's (1979) attribution theory of achievement motivation, he included "controllability" as a third dimension, which refers to how much control an individual has over a cause. Weiner (1985) found five empirical studies that identified controllability as a causal dimension and stated that controllability should be included in the causal analysis of attributions. In studying controllability dimension, some researchers (Kent & Martinko, 1995; Russell, McAuley, & Tarico, 1987) found that controllability and locus of causality were highly correlated. However, McAuley (1992) showed that the locus of causality and controllability were empirically distinct. Given these different findings, attributional researchers should be very careful to identify and confirm which dimensions are correlated when they apply attribution theory to different settings.

Two other dimensions *globality* (Abramson, Seligman, & Teasdale, 1978) and *intentionality* (Weiner, 1985) are also studied by many attributional researchers. Since there are still arguments and several criticisms, future research may be needed to refine these dimensions. In my current study, only three dimensions—locus of causality, stability, and controllability—were examined.

## **Conclusion**

From the discussion on causal attributions, and causal dimensions, several conclusions can be appropriately drawn here. First, in studying attributions, the general consensus of the literature by the attributional researchers is that we should not only analyze causal attributions in contrasting ways (open-ended format or fixed format), but

also evaluate causal dimensions. According to Weiner (1986), and Martinko and Gardner (1982), it is the causal dimensions rather than the specific causal attributions that influence individuals' expectancies. For example, if individuals attributed one's failing to complete writing assignments satisfactorily to their poor writing abilities, it is better to perceive that it is not a lack of writing ability per se lowering one's expectancy to success; rather, it is because the cause (a lack of ability) is internal, stable, and uncontrollable that results in the lowered expectation to writing success. Second, in studying attributions, most researchers have used mixed or quantitative methods to assess the causal thinking or causal reasoning. But the fact is that in studying attributions in different domains or in different contexts there will be a lot of disparate or contradictory elements in findings, qualitative approaches to studying and assessing attributions may yield important insights (e.g., Campbell & Martinko, 1998). Last, although many attributional researchers have done a lot of studies on causal attributions (Frieze, 1976) and casual dimensions (Russell, 1982; Russell, McAuley, & Tarico, 1987; Weiner, 1985) in achievement-related situations. The majority of the studies are more applicable to general contexts (e.g., tests, sporting events, games, occupational performance). As more specific domains (e.g., writing, mathematics in academic settings, specific occupational performance in work settings) in achievement contexts are explored, additional studies may become necessary. Therefore, researchers should anticipate that findings on causal attributions and attributional dimensions may not be replicated across domains. For example, the causes identified in studying achievement situations may not be applicable to the analysis of interpersonal attraction; the dimensions in studying health issues may not be relevant to the analysis of organizations. We should always keep in mind that

casual explanations and attributional dimensions are likely to be different depending on different domains of interest of the researchers.

### **Attributions and Attributional Style**

Attribution theory is concerned with the thoughts people have about events or situations and what causes them, which offers us one method for understanding human behavior (Weiner, 1986). Specifically, an attribution is an expression of the way a person perceives the relationship between a cause and an outcome. One of the most fundamental ways of judging outcomes, of course, is whether an outcome is judged to be a success or failure. Therefore, attributions provide explanations about why today's stock market rose or fell, why our favorite team won or lost, and why someone is happy whereas someone else is depressed. Attributions also are basic to judgment that we make in our daily lives. For instance, we offer explanations to ourselves and to others about why we did well or poorly on academic assignments by receiving satisfactory or unsatisfactory grades, why we or others were accepted to prestigious universities with scholarships, or why it was difficult to start writing on one assignment, while it was easy to start and complete another. According to Peterson et al. (1982), these varying "explanations" for success and failure are indicators of individuals showing different characteristic attributional tendencies in facing different or even the same situations. Peterson et al. (1982) termed these different attributional tendencies as *attributional style* (AS) (1982).

In response to attribution theory and the concept of attributional style, psychologists and educators have debated how to promote academic achievements and have attempted to determine factors that affect students' responses to academic success and failure in academic settings.

## **Measures of Attributional Style**

If early attributional theorists were more concerned about attribution theory, current attributional researchers seem more concerned about how the analyses of different casual explanations and dimensions can be related to different attributional styles of individuals. Specifically, their primary interest appears to be in how different attributional styles of individuals are related to behavioral outcomes or to their expectancy beliefs for success or failure.

Two approaches are often used to assess attributional style, one involving global measures of attributional style and the other intermediate-level measures. The former approach assumes that attributional style applies across a variety of situations. Such measures were developed to test predictions from the reformulated theory of learned helplessness depression (Abramson et al., 1978). The latter approach, on the other hand, assumes that attributional style should be assessed in more limited contexts such as work, school, and relationship.

### **Global Measures of Attributional Style**

A number of measures have been developed to assess global attributional style—that is, attributional approaches that apply across a variety of situations. Among the best known of these global measures is the Attributional Style Questionnaire (ASQ; Peterson et al., 1982), which has proven to be a valid predictor of depression, and the Children's Attributional Style Questionnaire (CASQ; Seligman et al., 1984), which was developed to assess attributional style in children ages 8-13.

There are different formats used for measuring global attributional style. Some researchers have chosen to use forced-choice measures in which respondents have to

select a cause from a list of potential explanations, while other researchers choose to use open-ended format to invite respondents to generate causes of their own. Benefits of forced-choice measures are apparent: first, this method restricts the types of causes to only those attributions of theoretical interest (e.g. ability, effort, task difficulty, and luck) and second, this method takes respondents less time to complete. Last, this method could more accurately reflect how individuals typically select a cause without considering alternative dimensions such as locus of causality, controllability, and stability. But the benefits of open-ended measures should not also be overlooked: first, since this method invites respondents to generate a cause of their own, which may better reflect their real causal explanations of outcomes and which may expand the list of causal explanations for future studies of attributions. Second, according to Frieze (1976), open-ended measures may be more appropriate for novel situations.

In designing measures for causal dimensions, rating methods are used in both open-ended and force-choice measures, which invite respondents to respond to several attributional dimensions. In addition, there are some attributional researchers used the technique of content analyses of individuals' writings to assess attributional style. For example, in developing the *Content Analysis of Verbatim Explanations* (CAVE; Peterson, 1992), researchers first extracted causal explanations from a text, and then rated them along the dimensions of locus, stability, and globality. The CAVE technique has proven useful when written content is all that is available.

The supporters of global measures of attributional style assume that there is a high degree of cross-situational consistency in the types of attributions individuals make. This assumption has been questioned or challenged by some attributional researchers. Cutrona

et al. (1985), for instance, found that the ASQ was a poor predictor of attributions for actual events, and suggested that attributions should be studied on the basis of specific situations. Henry and Campbell (1995) suggested when measures of attributional style are used to predict individuals' attributional styles specific levels need to be established.

### **Intermediate Measures of Attributional Style**

In order to solve the problem that a questionnaire used in a global situation may not accurately and consistently predict individual's attributional style across contexts, different situational measures for attributions were developed. One of the best well-known of these measures is *the Academic Attributional Style Questionnaire (AASQ;* Peterson & Barrett, 1987). This questionnaire used the open-ended format to get the exact causes of 12 negative hypothetical events in academic settings made by participants, and forced-choice questions to measure respondents' three dimensions of internality (vs. externality), stability (vs. instability), and globality (vs. specificity). The measure has shown high internal consistency, and findings suggest those participants who made internal, stable and global attributions for negative events (labeled as negative explanatory style) tend to receive lower grades in classes than did students who referenced external, unstable, and specific causes. Henry and Campbell (1995) also developed a measure of attributional style for both positive and negative academic events. This measure demonstrated adequate to good reliability and has been used to predict academic performance.

### **Conclusion**

Research on attributional style has brought forth several issues in need of further research. The first issue is the level of specificity. Many attributional researchers have



questioned various global approaches of measuring global attributional style. It is still not very clear if intermediate-level measures provide a more satisfactory solution to the problem than do more specific or more global measures. More research is required to resolve these issues. To be specific, in deciding which measure to use, the attributional researcher should consider the specific goals of the research project, and choose the best tool to meet the specific needs of the related project to have the satisfactory reliability. A second issue discussed by Carver (1989) is that there appears to be no rationale for assuming that the dimensions are additive. According to Carver, there is an interactive effect of the different dimensions on different outcomes. For example, in the learned helplessness model of depression (Abramson et al., 1978), high levels of both stability and globality need to be present in order for depression to occur for an individual in a hypothetical situation. Therefore, Carver suggested that testing the interaction between different dimensions appears to be the next step. Last, in prior research, most researchers used composite scores to assess individual's attributional style, or a single score was proposed to measure attributional style. The reason was that internal consistencies were low (e.g., alpha is from 0.4 to 0.7; ASQ, Peterson et al., 1982), compared to the composite scores (e.g., 0.75 for good events and 0.72 for bad events, ASQ, Peterson et al., 1982). But later, Peterson and Villanova (1988) have reported considerably high reliabilities for the separate dimensions (0.66 to 0.88). His findings encouraged the later attributional researchers to use separate scores to measure attributional style.

Several conclusions concerning the construct of attributional style can be drawn on the basis of the prior discussion. First, attributional style seems to be a reliable and valid construct based on prior research on its reliability and validity. Second, targeted

attributional style questionnaires are useful when are used in more specific situations although these measures may not be consistent in different or global situations. Most importantly, attributional style seems to be related to several different variables such as self-efficacy, academic outcome, expectancy for academic achievement, and motivation that are of interest to attributional researchers in academic settings. Therefore, attributional style should be discussed and evaluated in academic settings purposefully and specifically.

### **The Framework of the Current Study**

#### **Measure Development**

In order that more reliable and valid measures can be used to assess and predict different attributional styles, more specific studies need to be conducted. The present study involved the development and initial validation of an instrument to measure writing attributional style among college students, the Attributional Style Questionnaire for Writing (ASQ-W). The ASQ-W was developed based on the original Attributional Style Questionnaire by Peterson et al. (1982) and the Academic Attributional Style Questionnaire by Peterson and Barrett(1987).

According to Weiner (1986), when studying causal explanations of attributions, the majority of investigations have taken place in the achievement-related contexts. Weiner further stated that the circumstances tested typically involve success and failure in an academic setting and recruit college students as participants. In the current study, 12 different hypothetical writing situations in an academic setting were identified as the focus of the ASQ-W, which was patterned after the Academic Attributional Style Questionnaire (Peterson & Barrett, 1987). It presents participants with 6 good academic

writing situations (e.g., You have a writing assignment and you have no difficulty starting your writing) and 6 bad academic writing situations (e.g., You have a writing assignment and you don't know how to start it). These events are listed in Table 1.

Table 1. *The Hypothetical Situations Used in Current Study*

---

Hypothetical Good Academic Writing Situations

1. You have a writing assignment and you have no difficulty starting your writing.
2. You have a writing assignment and you can find the related resources you need to write your paper.
3. You have a writing assignment and you ask for help when you get stuck.
4. You have a writing assignment and you get the paper done on time.
5. You have a writing assignment and you've finished writing it, and you're satisfied with your work.
6. You have a writing assignment and you get a satisfactory grade (A) on it.

Hypothetical Bad Academic Writing Situations

7. You have a writing assignment and you don't know how to start it.
  8. You have a writing assignment and you can't find the resources you need to help you write it.
  9. You are stuck in writing an assigned paper and don't seek help.
  10. You have a writing assignment and you miss the deadline.
  11. You have a writing assignment and although you've finished it, you are unsatisfied with your work.
  12. You have a writing assignment and you get an unsatisfactory grade (D) on it.
- 

### **One-Cause-Three-Dimension Model**

Since Frieze (1979) suggested that open-ended measure may be appropriate for novel or new situations, I used an open-ended format in developing an additional set of six items measuring causal explanations of hypothetical writing success and six items of hypothetical writing failure. Participants were asked to generate likely causes for their writing successes and writing failures of their own. In each hypothetical writing situation, the statement was subdivided into two categories: a statement of a hypothetical successful/unsuccessful writing situation (e.g., “You have a writing assignment and you have no difficulty starting your writing”) and causal explanation eliciting question (e.g.,

“For you, the most likely cause for this would be \_\_\_\_”). The responses in this part were then post-coded into 6 different categories—ability, effort, task characteristics, mood, luck, and miscellaneous. The rationale of this classification came mainly from Weiner’s four-widely-used causes (ability, effort, task difficulty, and luck; Weiner et al., 1971) and partly derived from Frieze’s (1976) classification of causes. According to prior studies (Burger et al., 1982; Elig & Frieze, 1979; Frieze, 1976; Russell et al., 1987) on perceived causes, Weiner’s four main causes continue to be were the most frequently mentioned ones by participants in explaining their causes of success or failure. The other two categories were added is because when coding the causes for writing success and failure, many participants made such causal explanations as “I was anxious, or I was paranoid” and “I had a writer’s block, or I disagreed on the topic” which can’t be categorized within the causes proposed by Weiner. Therefore, two of the Frieze’s categories—mood and other— were added my categories since these two categories were more applicable to participants’ responses.

To date, studies in attributional style have been cumulated as pessimistic/negative and optimistic/positive attributional styles. According to Peterson and Seligman (1984), attributional style is “...a cognitive personality variable that reflects the habitual manner in which people explain the causes of events that befall them.” According to (Peterson & Barrett, 1987; Peterson et al., 1982), these causal explanations differ in three dimensions: externality/internality, stability/instability, and globality/specificity. An internal attribution is always related to oneself, whereas an external attribution is attributable to outside circumstances. For example, among four typical causes individuals make, ability and effort are considered as internal, whereas luck and task difficulty external. A stable

attribution means a cause is fixed and unchanging, whereas an unstable attribution refers to a cause is transient and variable. For example, ability may be considered as stable, whereas effort may be thought as unstable across situations. A global attribution is seen as a cause can be generalized to different situations, whereas a specific attribution not.

In both Peterson et al. 's (ASQ, 1982) and Peterson and Barrett's (1987) questionnaires, participants were asked to rate each perceived cause on a 7-point scales according to the internality (vs. externality), stability (vs. instability), and globality (vs. specificity). Here, the internality is the equivalent of locus of causality referring whether the cause is internal or external; the stability dimension is the same as the one in Weiner's model, while since the globality was defined by learned helplessness researchers (Peterson et al., 1993), Weiner (1986) found that, unlike locus of causality and stability, globality-specificity has not emerged as a separate dimension in almost all of the factor analytic and multidimensional scaling studies. Controllability as a dimension was first suggested by Rosenbaum(1972). He recognized that such causes as mood, fatigue, and temporary effort all are internal and stable, yet they are distinguishable in that effort is subject to volitional control—a person can increase or decrease the level of effort, but which is not true of mood or fatigue—these causes can't be willed to change under most circumstances. In my current study, many of the participants stated the causes—for example, fatigue, mood, or effort—as their main explanations for writing success or failure under some circumstances. Therefore, the controllability as a dimension proposed by Weiner (1979) was judged likely to better serve the purposes of my current study. In developing 36 causal dimensions items of attributional style questionnaire for writing, I

used Weiner's three-causal-dimension model—locus of causality, stability, and controllability.

Although the rationale and the empirical studies identified the same three causal dimensions (Weiner, 1986), arguments regarding the exact number of causal dimensions have always existed. One of these is whether there might be fewer than three dimensions. A representative study by Anderson (1983) suggested that there may be fewer than three underlying causal dimensions in both achievement and interpersonal contexts. Again, since few studies on attributions and academic writing are available, in current study I proposed there are fewer causal dimensions in the domain of academic writing. Because writing as a cognitively complex ability has a higher demand on one's own behavior rather than environmental factors. Meanwhile, unlike most tasks in achievement settings (e.g., a test in algebra, a swimming test), most writing assignments in academic settings don't need the individuals to make decision in a very short period of time, and antecedents and consequences are more internal and controllable under such academic writing circumstances. Such dimensions as locus of causality and controllability would more or less be overlapped in academic writing contexts.

### **Purpose of the Study**

To date, studies on attributional style have become more and more domain specific based on different needs. For example, in recent years, many studies have analyzed such relationships as those between academic attributional style and self-efficacy (Camgoz et al., 2010), academic attributional style and gender (Camgoz et al., 2010), attributional style and college algebra (Cortes-Suarez, 2008), and attributional style and law school performance (Satterfield et al., 1997). Notably, all of the studies used the measures

developed by attributional researchers (CDSII; McAuley et al., 1992; AASQ; Peterson & Barrett, 1987; ASQ; Peterson et al., 1982) that are supposedly more applicable to global rather than domain-specific situations. As discussed previously, although many global and intermediate measures are valid and reliable, they don't appear to be totally cross-situationally consistent (Kent & Martinko, 1995) or tend to suffer from poor reliability (Fernandez-Ballesteros, 2002).

In the only study I found related to attributions and writing, Mayrath (2008) invited 22 highly productive authors to answer a single open-ended question regarding the causes of their productivity in publishing in top educational psychology journals. Four major categories of attributions were identified: collaboration, curiosity/passion, research skills, and time management. For student writers, however, these categories of attributions seem unlikely to adequately explain their writing success and failure in academic settings since they are still relative novices in academic writing. Thus, developing an attributional style questionnaire specifically meeting writing-related purposes—reporting on student writers' attributions, analyzing the dimensions of their attributions, and making an assessment and prediction of their attributional style—becomes necessary.

In summary, the primary purpose of current study was to develop and provide initial psychometric analyses of an instrument designed to measure writing attributional style among college students, the Attributional Style Questionnaire for Writing (ASQ-W). In the current study, the perceived causes relating to different successful and unsuccessful hypothetical situations are reported and the reliability and validity of the measure for writing attributional style tested. Like many other attributional style

measures, ASQ-W was designed to be multi-dimensional. Specifically, three dimensions of ASQ-W (locus of causality, stability, and controllability) were judged to be appropriate for this preliminary exploration and the relationship between scores on each dimension and composite dimensions were examined.

Finally, patterns of responses to the ASQ-W were examined in relationship to students' liking of writing, students' writing self-efficacy, students' actual writing performance. The relationships between attributional style for writing and variables in academic settings such as self-efficacy, students' feeling of liking writing, perceived writing achievement were examined using correlational analyses..

### **Research Questions and Hypotheses**

As described in Chapter 1, four research questions were discussed in this study. Specifically, these research questions, along with their related hypotheses stated as predictions were as follows:

1. What categories of perceived causes do the student writers report for their writing success and failure?

*H<sub>0</sub>: There are four categories of perceived causes for writing success and failure.*

*H<sub>1</sub>: There are more than four categories of perceived causes for writing success and failure.*

2. At what levels (item-subscale, and subscales, and composite subscales) is the measure (ASQ-W) reliable?

*H<sub>0</sub>: The measure is not reliable in all levels, Cronbach's alpha for the measure  $\alpha < .7$*



*H1: The measure is reliable at least in one level, Cronbach's alpha for the measure  $\alpha \geq .7$*

3. Does the measure for measuring writing attributional style contain three dimensions –locus of causality, stability, and controllability?

*H0: The measure of writing attributional style is three-dimensional*

*H1: The measure of writing attributional style is not three-dimensional*

4. Do scores on subscales of the ASQ-W correlate with students' liking writing, students' writing self-efficacy, and students' writing performance?

*H0: There are no significant relationships ( $r=0$ ) between subscale scores on the ASQ-W and students' liking writing, students' writing self-efficacy, and students' writing performance.*

*H1: There are significant relationships ( $r \neq 0$ ) between subscale scores on the ASQ-W and students' liking writing, students' writing self-efficacy, and students' writing performance.*

### **Chapter 3: Methods**

The main goal of this study was to develop and provide initial validation of an instrument to measure writing attributional style among college students, the Attributional Style Questionnaire for Writing (ASQ-W). The sample consisted of undergraduate students in a Midwest university who were enrolled in two educational psychology courses designed for pre-service teachers. These students were selected for participation because they needed to complete a general requirement for research participation in their classes and because of my interest in college students' writing attributions and these attributions' relationship to writing performance. As has been indicated, my hypotheses, were that the data yielded by the ASQ-W, like the earlier, more recognized and widely-used attributional style measures, would produce good or excellent internal consistency within the dimensions and at least acceptable inter-reliability across three dimensions, plus demonstrate an acceptable level of validity on the basis of reported causes for writing success and failure. I also proposed that there likely are relationships between students' attributional style for writing and other variables such as students' liking writing, students' writing self-efficacy, students' writing performance, based on an assumption that the data would reflect these correlations.

#### **Participants**

A total of one hundred seventy seven (177) undergraduate students enrolled in five different classes in the department of educational psychology at a Midwest university were invited to take the survey during the spring 2012 semester. One hundred thirty three (133, one case was deleted out of 134 who successful completed the survey) undergraduate students completed the survey during the spring semester for the purpose

of data analysis. The student demographic profile is provided in Table 2.

Table 2. *Demographic Information and Writing Grades of the Sample (N=133)*

Characteristics	Frequency	Percent
<b>Gender</b>		
Male	33	24.8
Female	100	75.2
<b>Ethnicity</b>		
White/Caucasian	125	94
African American	1	0.8
Hispanic	2	1.5
Pacific Islander	2	1.5
Other	3	2.3
<b>Age</b>		
19-24	125	94
25-34	7	5.3
35 or older	1	0.8
<b>Grades</b>		
<b>English Class</b>		
A+	9	6.8
A	73	54.9
A-	22	16.5
B+	15	11.3
B	12	9.0
B-	2	1.5
<b>Other Classes</b>		
A+	14	10.5
A	83	62.4
A-	10	7.5
B+	14	10.5
B	11	8.3
B-	1	0.8

## Measures

The survey used in current study consisted of five parts: the Attributional Style Questionnaire for Writing (ASQ-W), the Liking Writing Scale (LWS), Self-Efficacy for Writing Scale (SEWS), students' self-reported writing performance in English and in other classes, and items gathering demographic information.

**Attributional Style Questionnaire for Writing (ASQ-W).** The ASQ-W measure consisted of 48 items corresponding to the 12 hypothetical situations. This measure was closely modeled on the ASQ (Peterson et al. 1982) in its basic format, instruction, and response scales. The only difference was that in the current study the controllability dimension was used instead of a globality dimension. This measure asked for student judgments about six unsuccessful and six successful hypothetical writing situations in an academic setting. The hypothetical situations have been presented in Table 1. Then, for each hypothetical situation, one open-ended question/item about the cause of the outcome (writing success or failure) and three close-ended questions/items regarding the attributional dimensions (locus of causality, stability, and controllability) were provided to the participants for their responses.

Specifically, participants were asked to generate a cause themselves for each of the 12 situations and then to rate the cause along 11-point scales corresponding to the locus of causality, controllability and stability dimensions respectively. The following example illustrated the nature of these questions.

Imagine that you have a writing assignment and you have no difficulty starting your writing. For you, the most likely cause for this would be: (ONE most likely cause)

(Please use your own words and own ideas to answer the question regarding causes)

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (Circle one number)

<i>Totally due to</i>															<i>Totally due</i>
<i>me</i>		<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>			<i>other people or</i>
															<i>Circumstances</i>

C. In the future will this cause be present again? (Circle one number)

<i>Never</i>															<i>Always</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>				

D. Is the cause due to something that is under your control or out of your control?  
(Circle one number)

*Totally*  
*under my control* 0 1 2 3 4 5 6 7 8 9 10 *Out of my control*

These events were based on other achievement-oriented, attributional style questionnaires and considered to be “typical” of most student writers may encounter in their academic writing situations.

**Liking Writing Scale (LWS).** The LWS (Bruning, Dempsey, Kauffman, & Zumbunn, in press) includes 4 items, rated on a scale of 1 (strongly disagree) to 5 (strongly agree) that provide general information about the level of students’ positive attitude about writing. Item analysis showed internal reliability for this study was excellent ( $\alpha=.903$ ).

**Self-Efficacy for Writing Scale (SEWS).** The SEWS (Bruning, Dempsey, Kauffman, & Zumbunn, in press) is a 16-item scale with ratings of behavioral confidence for writing tasks made on a 0 to 100 scale (Bandura, 2006). This scale represents students’ writing self-efficacy in three dimensions: ideation, conventions, and self-regulation. Internal consistency for this study, summing across all items, was excellent ( $\alpha=.911$ ).

**Self-Reported Writing Performance.** Students were asked to report their writing grades in two different contexts for the current year: 1) grades earned in their English classes and 2) grades earned in other classes. For each, they were asked to indicate if their writing grades in the current year were “all or mostly all” A+, A, or A-; B+, B, or B-; C+, C, or C-; D+, D, or D-; or F. In our data, each self-reported grade category was coded on a standard grading scale (A+ or A= 4.00. A-=3.67, B+=3.33, B=3.00, B-=2.67, etc.), and the two scores combined to make a single writing performance index ( $\alpha=.801$ ).

## **Procedures**

### **Permissions and Approvals**

In the current research project, the permissions from the potential participants, supervisors who supervised the access to the potential participants, and supervising organizations who were authorized to approve the research were obtained. The current participants were required to complete a research requirement as part of their educational psychology classes, typically by reviewing a publication in research literature or by participating in research studies offered for their consideration. The current investigation was one such research study. Potential participants were informed of the opportunity in class to participating in research project. The Verbal Script For Recruitment is attached in Appendix A. Since the College Writing Survey is an online survey, an email recruitment script is also needed which appears in Appendix B. Professors who supervised access to the potential participants were individually approached. Finally, the Institutional Review Board as the official supervising organization approved the conducting current research by stamping authorization on the Informed Consent (Appendix E) and IRB document (Appendix F) which were attached separately.

### **Data Cleaning**

One hundred thirty four (134) valid responses were received within the collection period. The data were collected by the Qualtrics Survey software and then downloaded to SPSS for data analysis. The variables related to participants' confidential information were first cleaned; these included respondents' IP addresses, external data reference, and their names and class sections (for keeping the records of their research participation).

Meanwhile, incomplete responses were deleted. One completed response was removed because the person's sample of responses in a category was too small to be considered. Therefore, the final number of valid responses for data analysis was 133.

### **Coding of Responses**

The first phase of current study was designed to explore how student writers report their perceived causes for writing success and failure. The general procedures for the first phase were qualitative: exploring, analyzing, representing, and validating the data (Creswell et al., 2007). Participants were asked to generate a cause themselves for each of 12 hypothetical writing situations in the ASQ-W. These responses were coded into 6 different categories of causal explanations. Although some participants listed more than one cause, only the first one was coded for the purpose of data analysis. The causal explanations were coded into six categories: ability, effort, task characteristics, luck, mood, and miscellaneous. Four of these categories (ability, effort, task characteristics, luck) have been extensively studied in previous literature (e.g. Weiner, 1972; Weiner, 1986). Of the remaining two, mood was adopted from Frieze's study (1976) and "miscellaneous" used to refer to some unidentifiable causes such as "I am tired, I am indecisive, or writer's block, etc.". The six categories of casual explanations for writing success or failure were as follows:

**Ability** included student references to their writing capacity or skill the student writer demonstrated in a writing task, such as mastery of the ideation, conventions, and self-regulation dimensions of (Bruning, Dempsey, Kauffman, McKim, & Zumbunn, in press). It also refers to references to familiarity of the topic and prior knowledge on given writing tasks.

**Effort** (adopted from Frieze' article, 1976) here refers to the student writer's study habits in writing, practice for writing.

**Task characteristic** refers to features of task difficulty in writing such as "it was a really easy paper to me" or "the topic was difficult to write about", or a characteristic of writing instruction such as "the instructions for the assignment were very clear and understood" or "...because I didn't understand the directions clearly enough."

**Luck** (Rescher, 1995) was coded when a respondent referred to information about the presence of chance, or fortune when doing a writing-related assignment.

**Mood** (adopted from Frieze, 1976) was coded in references to two categories. Positive mood included such categories as positive expectation, and likability; negative mood included references to depression, anxiety, poor self-esteem, and stress. Other emotions also included were embarrassment, stubbornness, and sadness, excitement, etc.

**Miscellaneous** was used to code references to otherwise unclassifiable information such as writer's block, distraction, confusion, etc.

A table of each participant's responses regarding the perceived causes to 12 hypothetical writing success and failure appears as Appendix F. An inter-rater reliability analysis using the Kappa statistic was performed to determine consistency among raters (i.e., values of Kappa from 0.40 to 0.59 are considered moderate, 0.60 to 0.79 substantial, and 0.80 outstanding Landis & Koch, 1977).



## Chapter 4: Results

The current study was designed to answer the four research questions that led to eight hypotheses, as I have presented in Chapter 2. In this chapter, data related to all four questions are discussed. Research question 1 explores how student writers perceive and report their causal explanations to different hypothetical academic writing situations. Research question 2 examines the reliability of the ASQ-W in all levels (items, subscales, composite scale). Research question 3 investigates and makes an initial validation of a measure (ASQ-W) on how student writers ascribe to their writing success and failure in three attributional dimensions based on their own casual explanations. The last research question assesses the correlations between the students' writing attributional styles and their liking writing, writing self-efficacy, and writing performance.

### **Perceived Causes for Writing Success and Failure**

*Research Question 1: What categories of perceived causes do the student writers report for their writing success and failure?*

Table 3 and Table 4 show the frequency distribution of the six categories of causal explanations for writing success and failure based on the coding of participants' self-reports of causes. The inter-rater reliability for the raters indicated an acceptably good level of agreement among the raters (Kappa = 0.78 ( $p < .001$ ), 95% CI (0.681, 0.878).

As can be seen in Table 3, more than half (65.9%) of the attributions for writing success were to ability and effort. Among the remaining causes, emotion accounted for 14.5% of the total causes for writing success. By comparison, nearly half of the attributions for writing failure were to ability and effort (48.7%). Among the remaining

causes, task characteristics and luck accounted for 25.1% of the total causes cited for writing failure.

Table 3. *Frequency of Causal Explanations for Writing Success in Six Hypothetical Situations*

Causal Explanation	1	2	3	4	5	6	Frequency	Percent
Ability	57	52	62	99	34	33	56	42.2
Effort	8	32	3	13	70	63	32	23.7
Task Characteristic	9	13	17	0	2	5	8	5.8
Emotion	47	4	24	7	21	13	19	14.5
Luck	2	2	8	1	0	0	2	1.6
Miscellaneous	10	30	19	13	6	19	16	12.2
Total	133	133	133	133	133	133	133	100

Table 4. *Frequency of Causal Explanations for Writing Failure in Six Hypothetical Situations*

Causal Explanation	1	2	3	4	5	6	Frequency	Percent
Ability	51	51	37	30	36	23	37	28.1
Effort	12	12	22	5	46	51	28	20.6
Task Characteristic	40	40	2	1	1	32	19	14.1
Emotion	5	5	28	2	6	2	7	5.4
Luck	2	2	13	36	16	5	14	11
Miscellaneous	23	23	31	59	28	20	28	20.8
Total	133	133	133	133	133	133	133	100

The overall frequencies of the different categories of causal explanations regarding 12 successful and failed writing situations reported by the participants are shown in Table 5. The most common causal explanation overall was ability (35%), especially for the successful writing situations (21%). The second most common causal explanation was effort (22.5%). Emotion was also commonly reported for situations of writing success (9.8%) while task characteristics were mentioned for situations of writing failure (10.2%). There was a tendency for miscellaneous causal explanations (e.g., I was mistaken on the day it was supposed to be turned in; I don't like confronting my teachers

and asking for help.) to be more common in connection with failed writing situations (10.5%) than successful writing situations (6%).

Table 5. *Overall Frequency of Causal Explanations for Writing Success and Failure*

Causal Explanation	<u>Success      Failure</u>		Frequency	Percent
	Total	Total		
Ability	56	37	93	35
Effort	32	28	60	22.5
Task				
Characteristic	8	19	27	10.2
Emotion	19	7	26	9.8
Luck	2	14	16	6
Miscellaneous	16	28	44	16.5
Total	133	133	266	100

### **Reliability of the ASQ-W**

*Research Question 2: At what levels (item-subscale, and subscales, and composite subscales) is the measure (ASQ-W) reliable?*

When the following analyses were computed separately for males and females, no differences were identified. Thus, the data were pooled across gender. The means and standard deviations for the subscales of the ASQ-W are presented in Table 6.

Table 6. *Item and Scale Means and Standard Deviation of the 48 ASQ-W items: Undergraduate Sample (N=133)*

Subscale	Locus of Causality	Stability		Controllability
		(M=6.89, SD=1.77)		
Success Situation	(M=3.16, SD=1.72)			(M=3.04, SD=1.74)
1	3.68 (2.79)	6.41 (2.62)		3.55 (2.94)
2	4.02 (2.81)	6.45 (2.33)		3.59 (2.79)
3	3.94 (2.70)	5.65 (2.68)		4.03 (2.77)
4	1.86 (1.96)	8.1 (2.57)		1.86 (2.09)
5	2.49 (2.18)	7.26 (2.51)		2.35 (2.22)
6	3.00 (2.66)	7.49 (2.49)		2.86 (2.82)

  

Subscale	Locus of Causality	Stability		Controllability
		(M=5.12, SD=1.77)		
Failure Situation	(M=3.41, SD=1.58)			(M=3.63, SD=1.67)
1	3.63 (2.74)	6.56 (2.29)		4.43 (2.57)
2	4.05 (2.85)	5.56 (2.47)		4.25 (2.92)
3	3.01 (2.57)	6.02 (2.59)		2.91 (2.68)
4	3.83 (3.58)	3.67 (3.01)		4.00 (3.77)
5	2.73 (2.29)	5.52 (2.74)		2.86 (2.44)
6	3.21 (2.54)	3.41 (2.60)		3.32 (2.73)

The average ASQ-W score for writing success was 4.37, and the standard deviation was 1.26; the average ASQ-W score for writing failure for the sample was 4.05, and the standard deviation was 1.33. As can be seen, these values were more comparable within the subscales of three dimensions than they were between the scales regarding writing success and failure. Both successful and unsuccessful writing situations tended to be explained as having internal, controllable causes. Notably, participants attributed writing success to more stable causes (M=6.89) and writing failure to more unstable causes (M=5.12). That is to say, student writers demonstrated more internal, controllable, and stable attributional styles for writing success while they showed more internal, controllable, and unstable attributional styles for writing failure.

**Inter-Item Correlation.** The inter-item correlations of ASQ-W items were estimated using reliability analysis in SPSS 20. In 6 successful hypothetical writing

situations, the inter-item correlations for the locus dimension ranged from .104 to .669; the inter-item correlations for control dimension ranged from .211 to .607; and the inter-item correlation for stability dimension was ranged from .159 to .769. In 6 unsuccessful hypothetical writing situations, the inter-item correlation for locus dimension ranged from .016 to .349; and the inter-item correlation for control dimension ranged from .094 to .386; the inter-item correlation for stability dimension was ranged from .152 to .538, From the present data, stability items in both situations generally showed the most consistent inter-item correlations among the six dimensions (three dimensions for writing success and three dimensions for writing failure). Items in such situations as “ you get the paper done on time; you are satisfied with your work; and you get a satisfactory grade on your paper” showed generally higher overall better correlations among the six situations in three dimensions (i.e., locus of causality, stability, and controllability) for writing success while only items in such situations as “you don’t seek help when you are stuck in writing a paper; you missed the deadline” and “you are unsatisfied with your work” showed stronger positive correlations in the stability dimension among three dimensions for writing failure.

**Internal Consistency Reliability.** The internal consistency reliability of the ASQ-W and each subscale were estimated with Cronbach’s (1951) coefficient alpha. Coefficient alphas and inter-correlations of the ASQ-W subscales are shown in Table 7.

Table 7. *Dimension Reliabilities and Inter-correlations (N=133)*

Dimension	1	2	3	4	5	6
Success						
1. Locus of causality	(.76)					
2. Stability	.02	(.79)				
3. Controllability	.77**	.07	(.75)			
Failure						
4. Locus of causality	.34**	.01	.34**	(.58)		
5. Stability	.28**	.25**	.19*	.27**	(.76)	
6. Controllability	.26**	.03	.33**	.87**	.24**	(0.61)

*Note:* Scale reliabilities (alphas) are shown on the diagonal.

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Six subscales reflecting separate attributional dimensions had a mean reliability of .71 (ranging from .58 to .79). These subscales attained reasonably acceptable reliability. Cronbach's coefficient alphas for the stability dimension for both successful and unsuccessful situations had the highest values. Interestingly, controllability and locus of causality had both highest correlations for writing failure and success among the subscales. These findings are consistent with the studies of Russell, McAuley, and Tarico (1987), who found that measures of the locus of causality and controllability appeared to be highly correlated, although this raises questions concerning discriminant validity of the scale. The alpha coefficients for the composite ASQ-W for writing success and writing failure were .81 and .80, respectively, which were good internal consistencies.

**Consistency Across Outcomes.** Composite ASQ-W had the highest reliability score compared to the composite scores for writing failure and writing success and those of the separate attributional dimensions. These findings were consistent with results of Peterson et al. (1982), who found that the most commonly used measure of attributional style (ASQ, Peterson et al., 1982) had the lowest internal consistencies of the separate

dimensions (0.4 to 0.7). ASQ as a global instrument for measuring attributional style across contexts was reported to have low internal consistencies, which triggered further studies on developing attributional style measures for domain-specific purposes, which could provide possible solutions by improving internal reliabilities of domain-specific attributional measures. In contrast, the ASQ-W was developed to measure attributional style in a specific-domain—academic writing—and its comparatively higher separate alpha coefficients showed it be reasonably successful at measuring specific dimensions of attributions for writing success and failure.

### **Dimensions for Writing Success and Failure**

*Research Question 3: Does the measure for measuring writing attributional style contain three dimensions—locus of causality, stability, and controllability?*

As has been discussed early, there typically are three causal dimensions—locus of causality, stability, and controllability—when attributions have been studied in achievement-related contexts (Weiner, 1986). Although attribution theory and results of empirical studies on attributions have identified the same three causal dimensions (Weiner, 1986), discussions with regard to the actual number of attributional dimensions have never stopped. As I proposed previously, in the context of academic writing, there might be fewer causal dimensions since writing as a cognitively complex skill is influenced by more personal rather than more environmental factors.

In the current study, participants were required to generate their individualized causes to six hypothetical successful situations. For each cause for writing success there were three close-ended questions tied to three attributional dimensions. This data collecting process made the number of items designed to understand causes for writing

success infinite. The same problem also showed in understanding the causes for writing failure. Therefore, the debate about the basic dimensions associated with attributions has been considerable. Furnham, Sadka, and Brewin (1992, p. 32) stated that “given the size of the N number of items it is probable that the factor solution was somewhat unstable”. By the same token, they suggested that factor analysis for attributional dimensions was not used in any subsequent analysis.

Based on the previous research on attributional dimensions, exploratory factor analyses of three dimensions for writing success and three dimensions for writing failure were conducted. In the current study, principal component analyses were executed separately for writing success and writing failure respectively.

Table 8 shows that five different factors with eigenvalues greater than 1 (Guttman-Kaiser rule) emerged from a factor analysis for the ratings of attributions for writing success. These five factors accounted for nearly 70% of the variance among the potential 18 factors that could have emerged from six hypothetical successful writing situations. Among three factors for writing success, factor 1 accounted for 20.97% of the variance; factor 2 accounted for 17.29% of the variance and factor 3 accounted for 11.22% of the variance.



Table 8. *Factor Loadings of Ratings for Attributions for Writing Success*

Successful Situation	Dimension	Factor				
		1	2	3	4	5
1	Locus	.065	-.042	<b>.890</b>	.221	.140
	Stability	.144	<b>.617</b>	.023	-.013	.337
	Controllability	.190	-.022	<b>.860</b>	.054	.107
2	Locus	.191	-.006	.196	<b>.899</b>	.150
	Stability	.118	<b>.666</b>	.101	-.124	.049
	Controllability	.262	.035	.105	<b>.860</b>	.139
3	Locus	.150	-.001	.139	.172	<b>.868</b>
	Stability	.253	<b>.406</b>	.215	-.127	-.293
	Controllability	.227	.059	.156	.104	<b>.870</b>
4	Locus	<b>.765</b>	-.137	.040	.136	.101
	Stability	-.116	<b>.818</b>	-.044	.124	.016
	Controllability	<b>.759</b>	-.051	.154	-.045	.079
5	Locus	<b>.791</b>	.076	-.127	.352	.127
	Stability	-.132	<b>.877</b>	-.056	.019	-.047
	Controllability	<b>.847</b>	.086	-.067	.190	.065
6	Locus	<b>.665</b>	.001	.379	.106	.151
	Stability	-.075	<b>.799</b>	-.147	.084	-.102
	Controllability	<b>.688</b>	.063	.349	.037	.053

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.

Note. The stability dimensions in all six successful situations were coded in the stable direction.

The loadings for factor 1 in Situations 4 (i.e., you get the paper done on time), 5 (i.e., you're satisfied with your completed work), and 6 (i.e., you get a satisfactory grade (A) on your writing assignment) are high for locus of causality for writing success, but also high for the controllability ratings. This could mean that when student writers judge their writing success, factor 1 is some combination of the two dimensions—locus of causality and controllability. The loadings for factor 2 are positively high in all six

situations. This could mean that when measuring writing success, stability is a discriminable factor generally affecting student writers' writing success. For factors 3 through 5, the ratings of dimensions become unclear since the attraction between each of these ratings seems to be not what they are rating (e.g., controllability, locus of causality, stability) but the *situation* they are rating (i.e., factor 3 represents situation 1 ratings, factor 4 represents situation 2 ratings, and factor 5 represents situation 3 ratings). This could mean in rating locus and controllability dimensions, the situations themselves are creating a "situation" context that is very powerful and ones that probably don't have much in common with Situations 4-6 (which are represented by factor 1, as far as locus and controllability are concerned).

Table 9 shows that seven different factors with eigenvalues greater than 1 emerged from a factor analysis for writing failure. These seven factors accounted for nearly 78% of the variance among the 18 potential factors that could emerge from the ratings given for the six writing failure situations. As shown in Table 9, the first three factors for writing failure accounted for 23.88%, 13.40%, and 10.53% of the variance, respectively. The remainder of the factors each accounted for less than 10% of the variance.

Table 9. *Factor Loadings of Ratings of Attributions for Writing Failure*

Failure Situation	Dimension	Factor						
		1	2	3	4	5	6	7
7	Locus	.016	.123	-.006	.132	<b>.861</b>	.092	.167
	Stability	<b>.575</b>	-.173	.142	-.090	.356	.012	-.196
	Controllability	.001	.107	.064	-.006	<b>.893</b>	.079	.071
8	Locus	.067	-.014	.016	<b>.928</b>	.028	.109	.102
	Stability	<b>.534</b>	-.224	.500	.212	.193	.009	-.040
	Controllability	.050	.051	.045	<b>.929</b>	.074	.088	.078
9	Locus	.110	.047	.078	.111	.197	.123	<b>.879</b>
	Stability	<b>.615</b>	-.190	.265	.142	.072	.017	.133
	Controllability	.108	.173	.148	.087	.037	.199	<b>.872</b>
10	Locus	.046	<b>.897</b>	.224	.021	.096	.056	.083
	Stability	<b>.727</b>	.283	-.153	.123	-.053	-.033	.165
	Controllability	.032	<b>.907</b>	.190	.015	.141	.100	.129
11	Locus	.121	.065	.082	.153	.122	<b>.892</b>	.157
	Stability	<b>.790</b>	.044	-.049	.087	-.177	.229	-.028
	Controllability	.097	.077	.044	.058	.062	<b>.919</b>	.143
12	Locus	.023	.222	<b>.884</b>	-.022	.000	.032	.126
	Stability	<b>.692</b>	.130	-.033	-.110	.019	.078	.160
	Controllability	-.013	.262	<b>.866</b>	.037	.036	.099	.100

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 8 iterations.

Note. The stability dimensions in all six failed situations were coded in the stable direction.

Stability ratings loaded strongly on factor 1 for all six writing failure situations.

This again could mean that when measuring attributions for writing failure, as in measuring attributions for writing success, stability is a discriminable factor. The nature of factors 2 through 7 for ratings of causes of writing failure are unclear. Again, as in student ratings of causes of writing success, these factors seem not to reflect theoretical dimensions but the *situation* they are rating (i.e., factor two represents situation 10 ratings, factor three represents situation 12 ratings, factor four represents situation eight

ratings, and factor 5 represents situation 7 ratings, factor 6 represents situation 11 ratings, and factor 7 represents situation 3 ratings). Each situation's locus and controllability ratings seem to be working in pairs within the situation, measuring these two dimensions in that context, but not with any consistency across situations.

### **Correlation between Writing Attributions and Students' Liking Writing, Writing Self-efficacy, and Writing Performance**

*Research Question 4: Do scores on subscales of the ASQ-W correlate with students' liking writing, students' writing self-efficacy, and students' writing performance?*

In the research of Shell, Colvin, and Bruning (1995), self-efficacy for writing was shown to be related to causal attribution; Camgoz, Tektas, and Metin (2008), however, found no significant relationship of self-efficacy to attribution. In the current study, the correlation between ASQ-W and LWS, SEWS, and students' reported writing grades in their English classes and other classes were evaluated by running multiple linear regression analysis with SPSS 20. As shown in Table 10, none of the regression coefficients (betas) for any of the variables were significant. This suggests that, although a multiple correlation was obtained when all four predictors were considered, no individual predictor contributed significantly to the regression equation when all four predictors were simultaneously considered. That is, there seemed to be no "good" predictor among these variables of attributions for writing success and failure. Note that that an examination of correlations of all variables also showed none to correlate significantly with attributions for writing success and failure.

Table 10. *Model Summaries of the Regression Analysis for Predicting ASQ-W in the Whole Sample*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	2.946	1.051		2.803	0.006			
Liking Writing Efficacy	0.032	0.097	0.033	0.329	0.743	0.022	0.029	0.029
Grade in English class	0.133	0.271	0.061	0.489	0.625	-0.031	0.043	0.043
Grades in other class	-0.384	0.277	-0.164	-1.383	0.169	-0.108	-0.121	-0.121

Dependent Variable: Attributions for Writing Success

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	2.801	1.114		2.514	0.013			
Liking Writing Efficacy	0.025	0.103	0.025	0.244	0.807	-0.008	0.022	0.022
Grade in English class	0.23	0.287	0.101	0.8	0.425	0.049	0.071	0.07
Grades in other class	-0.215	0.294	-0.087	-0.732	0.465	-0.014	-0.065	-0.064

Dependent Variable: Attributions for Writing Failure

## **Chapter 5: Discussion**

The main purpose of the current study was to develop an instrument to measure writing attributional style among college students, the Attributional Style Questionnaire for Writing (ASQ-W), and to make an initial examination of its reliability and validity. Four general questions were investigated and discussed in this study. First, how do college student writers perceive and report their causes for writing success and failure? Second, to what extent do college student writers differentiate the causes within the three major dimensions previously explored in attribution theory (i.e., locus of causality, stability, and controllability), and thus assess and predict their attributional styles? Third, psychometric properties such as reliability, and validity were assessed to determine the quality of the ASQ-W. Lastly, an investigation of the relationship between students' writing attributions and their liking writing, writing self-efficacy, grades both in English and other classes was made.

### **Perceived Causes for Writing Success and Failure**

As indicated previously in this thesis, attributions for success and failure have been typically examined in academic settings with college students as participants. This study follows this same approach. In most early research on attributions, four categories of perceived causes (i.e., ability, effort, task, difficulty, and luck) have been reported in (Weiner, et al., 1971). More recently, however, a broader range and variety of perceived causes other than original four have been confirmed. Theoretically, the potential causes of achievement-related success and failure could infinite, and in most achievement-related studies there is an agreement among attributional researchers that the major categories of perceived causes of success are overlapping: ability, effort, task characteristics, motivation, teacher's competence, mood, and luck (Weiner, 1986). In the

current study, an open-ended investigation of students' perceptions of causes of writing success and failure was conducted. Six categories were coded based on participants' free responses. They are ability, effort, task characteristics, emotion, luck, and miscellaneous. The analyses of overall frequencies of students' reported perceived causes showed that 65.9 % and 48.7 % of the participants attributed their writing successes and failures respectively to ability or effort. The highest frequency of causal explanation reported was ability followed by effort. These findings are consistent with other previous investigations on most frequently perceived casual explanations of writing success (e.g., Cooper & Burger, 1980; Frieze, 1976) and failure (e.g., Cortes-Suarez, 2008). As reported by Russell, McAuley, and Tarico (1987) and Cortes-Suarez (2008), students tended to give main causal explanations to ability and effort for failing a test while effort for passing a test. In the current study, participants tended to attribute both their writing successes and failures to ability and effort. Specifically, 42.2 % of participants gave the highest causal explanation to ability, a finding that is not consistent with earlier studies that reported that students most often emphasize task characteristics as a cause for their academic failure (Cortes-Suarez, 2008, Kovenkliouglu & Greenhaus, 1978).

As has been indicated, participants tied their writing successes and failures mainly to effort and/or ability. In my view, this result can be interpreted as follows. Since writing as a cognitively complex skill, individuals' overall writing ability and how much effort they made on a specific writing task should make a big difference on their writing performance and expectancy for future outcomes. Notably, participants indicated causes related to "emotion" as the third most prominent factor (14.5%) in writing success while "task characteristics and luck (14.1% and 11% respectively)" were seen as main causes of

writing failure. If we consider ability, effort and emotion as internal factors and task characteristics and luck as external and uncontrollable factors in studying causal attributions, we may conclude that the participants in current study generally had an overall internal attributional style for writing success and failure. That is, participants in the current study perceived writing success and/or failure to more attributable to internal factors than to external factors. It may be that, participants in the current study felt that their writing successes were more controllable than their writing failures.

### **Reliability and Validity of the ASQ-W**

The ASQ-W generally showed good internal consistency reliabilities for writing success and writing failure with alpha coefficients of .81 and .80 for these overall scales respectively. The six subscales (three each for success and failure) had reliabilities of .71 ranging from .58 to .79 (mean=.71) indicating acceptable reliability. The inter-item correlations of ASQ-W for writing success, however, were much more variable (ranging from .104 to .769), while the inter-item correlations of ASQ-W writing failure situations ranged from .016 to .538. In the present study, situations and rating of attributions for writing success showed higher reliability than did those for writing failure. Items in success situations 4 (you get your paper done on time), 5 (you're satisfied with your work), and 6 (you get a satisfactory grade (A) on it) showed overall better correlations in three dimensions for writing success. By contrast, items in these similar but failing contexts (Situations 9, 10, 11) only showed a better reliability in the stability dimension.

Two preliminary aspects of validity of the ASQ-W measure, discriminant validity and predictive validity, was also assessed. In order to assess discriminant validity, the exploratory factor analyses of three dimensions for writing success and three dimensions



for writing failure were conducted. In the current study, principal component analyses were executed for writing success and writing failure respectively.

As suggested by the results of principal component analysis for 18 items from six hypothetical situations for writing success, 5 factors emerged for the ratings of attributions for writing success. Among these 5 factors, stability as a factor can be measured nicely, appearing as a clear factor 2 since it had high loadings for all six situations in the success ratings. The scale reliability for stability for writing success situations also showed a high alpha ( $\alpha=.79$ ). These results indicated that in measuring attributional style for writing success, stability as a dimension does exist. By contrast, locus of causality and controllability ratings don't seem to be that separable, as indicated by their appearing together as factor 1 in three writing success situations (Situations 4, 5, and 6). As discussed previously, these two dimensions also showed a high intercorrelation. When studying attributions in writing success situations, it seems that locus of causality and controllability may be measuring the same dimension or there is a factor influencing writing success that reflects a combination of these two dimensions.

In the principal component analysis for 18 items from six hypothetical situations for writing failure, seven factors emerged for the ratings of attributions for writing failure. Among these seven factors, stability appeared as a clear factor 2 since stability rating had high loadings for all six situations in the failure ratings. The scale reliability for stability for writing failure situations also showed an acceptable alpha ( $\alpha=.76$ ). These results seem to indicate that stability also exist as a dimension in measuring attributional style for writing failure. In contrast, locus of causality and controllability ratings don't seem to be that separable, as indicated by their both loading on factor 1 in writing failure

situations. As discussed previously, these two dimensions also showed high intercorrelation. When studying attributions in writing failure situations, it seems that locus of causality and controllability are measuring the same dimension or there is a factor influencing writing failure that reflects a combination of these two dimensions.

The results of the principal component analysis for writing success suggested that stability as a dimension can be distinguished from the dimensions of locus of causality, and controllability. This finding is consistent with the position I proposed earlier—that in studying causal dimensions for writing success, there should be only two dimensions (i.e., a stability dimension and a combined locus of control/controllability dimension) instead of three. This also is consistent with a study by Anderson (1983), which suggested that there may be fewer than three causal dimensions in certain situations.

The results of the principal component analysis for writing failure show that stability as a dimension is also discriminable from locus of causality and controllability. In the present results at least, locus of causality and controllability—established dimensions by other attributional researchers—are intertwined. Thus it may be also true that in studying causal dimensions for writing failure there are only two dimensions (i.e. stability and a combined locus of control/controllability dimension) instead of three.

Predictive validity of the ASQ-W was also examined by conducting multiple linear regression analysis. As already indicated, no good single predictor appeared of attributions for writing success and failure. That is to say, on the basis of the results from the current study, it can be concluded that liking writing, writing self-efficacy, and self-reported writing success do not significantly predict attributional style for writing.

The results of this study provide initial evidence relating to the reliability and validity of the ASQ-W in three dimensions described by Weiner (1979, 1985). In the present study, the results are most consistent in supporting construct validity for the stability dimension in judging causes of writing success and failure. However, the other two attributional dimensions—locus of causality and controllability—did not consistently appear as independent attributional dimensions in judging causes of writing success and failure in writing contexts.

### **Implications: Understanding Student Writers' Attributions**

The findings of the current study have the potential for helping student writers better understand their causes for writing success and failure. As it is further refined, the ASQ-W also may provide a valuable tool to educators seeking to help students understand the causes for writing success and failure. The students' self-reported causes could serve as a source of information for predicting how students will judge their successes and failures in writing tasks. Many student writers struggle when completing a writing assignment for different causes. As has been indicated earlier, many factors can attribute to writing success or failure. Analyses of their different causes for writing success and failure may help student writers understand and redirect their responses to certain writing tasks.

With further refinement of the ASQ-W, information from the measure could also be used in assessing causal dimensions in writing. Since there is no previous research on measuring casual dimensions for writing success and failure, the ASQ-W could provide instructors and attributional researchers with a comparatively valid measure to directly

assess student writers' causal dimensions. This measure can also provide empirical support to the theoretical model of attribution research.

### **Final Thoughts**

There are several limitations to the present study. First of all, since there was only a single on-line survey conducted and all the data were then collected by a single package, there is the possibility of common method error variance. Second, in the current study, the ASQ-W used six hypothetical situations for writing success and six hypothetical situations for writing failure respectively. These situations mirrored each other for the convenience of research, but the use of hypothetical situations in studying attributions may “significantly but only weakly to moderately associate with attributions for actual events” (Ashforth & Fugate, 2006, p.15). Third, in the current study, a limited simple size within a specific group of participants likely weakened the power of the findings and generalizability. If other attributional researchers would like to duplicate a similar study, a more representative sample with random and larger simple size should be used. Fourth, possible ethnic differences in causal attributions are not addressed in the present study. In the studies by Friend and Neale (1972), and Graham (1994), for instance, White Americans attributed success and failure to internal attributions such as effort and ability while African Americans tended to attribute their successes and failures to external attributions such as luck and task difficulty. Future research would benefit from explorations of ethnic differences in casual explanations for writing success and failure. Lastly, further research could be conducted to better distinguish the locus of causality from controllability in academic writing settings.

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## APPENDIX A. VERBAL SCRIPT FOR RECRUITMENT

Hello,

I am Mingying (Emily) Zheng from the department of educational psychology here at UNL. I am conducting a study on what college students think about their writing successes and failures and how they think relates to how much they like writing, their confidence as writers, and their actual writing success.

If you choose to participate, and I hope you will, you'll be completing an online survey. This survey has about 76 questions and will take you about 30 minutes to complete.

Specifically, you'll be asked 12 open-ended questions about your reactions to hypothetical writing situations, and to make 36 ratings about possible reasons why you might have succeeded or not succeeded in these situations. The survey also will ask you about how much you like writing and how confident you are as a writer. Finally, you'll be asked to provide some personal information, such as gender, age, class section, etc., so that we can analyze our data properly and let your instructor know that you've participated. .

The study will be conducted online and I will be sending out an electronic mail to those who sign up today that includes a link to an "Informed Consent" document online and to the survey. You need to be 19 years of age or older and to grant your informed consent in the online document to participate.

Participating in this study will give you one hour of credit toward your "research participation" requirements, as mentioned in the course syllabus. After you have finished participating in the study, I will send your name to your instructor so that you can receive credit for your research participation. I then will remove any identifiers such as your name and class time section from the data before data analysis begins to insure that your information is kept completely confidential.

If you are interested in participating in this survey on your writing attitudes and beliefs, please put your name and email on the signup sheet that I will be passing around the room. Do you have any questions? (answer any questions about purpose of the study, procedures, etc.)

Thank you and if you have any further questions, please let me know. You can call me, Emily Zheng, at 312-618-0198, and email me @ [emilyzheng7569@gmail.com](mailto:emilyzheng7569@gmail.com). You can also call my advisor, Professor Roger Bruning, at 402-472-2225 or email him at [rbruning1@unl.edu](mailto:rbruning1@unl.edu).

Thank you!

## APPENDIX B. EMAIL RECRUITMENT SCRIPT

Hello,

Thank you for participating in this survey!

**Follow this link to the Survey:**

[https://unleducation.qualtrics.com/SE/?SID=SV\\_cAtpovjEcZWam3O](https://unleducation.qualtrics.com/SE/?SID=SV_cAtpovjEcZWam3O)

Participation would involve you to complete an online 76-question survey consisting of 4 questionnaires. It will take you about 30 minutes to complete this survey. You are required to respond

- 1) 4 close-ended questions about your liking of writing,
- 2) 16 close-ended questions about your writing confidence,
- 3) 12 open-ended questions about your reasons for writing success and failure based on 12 hypothetical situations, 36 close-ended questions about the three dimensions of these reasons,
- 4) 8 questions about your personal information.

**3) Writing Problems/Failure And Writing Success Survey (48 questions)**

**Directions**

Try to imagine yourself in the following 12 writing situations. Half of them are bad/unsuccessful ones, half of them good/successful ones. If a situation like this happened to you, what would you think caused it?

For each situation, please do the following:

First, read each writing-related situation and try to vividly imagine it happening to you. Next, decide what you think would be the MOST LIKELY cause of the situation if it happened to you, and put the answer to the blank space provided for you. Finally, rate the cause of your failure or success on 3 dimensions.

- (a). Whether it would have due to you or due to other people or circumstances.
- (b). Whether it would have been under your control or out of your control.
- (c). Whether it would happen again or not.

**For example,**

**Imagine that you have a writing assignment and**

1. Imagine that you have a writing assignment and *you don't know how to start it.*

A. For you, the most likely cause for this would be: (ONE most likely cause)

I don't understand the topic; OR the topic is hard; OR I have no ability; OR I am not in good mood; OR I didn't study hard; OR the instruction is unclear. (Please use your own words and own ideas to answer the question regarding causes)



B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control* 0 1 2 3 4 5 6 7 8 9 10 *Out of my control*

You are free to decide not to participate in this study. You can also withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln. If you have questions or concerns about your rights, in that case you should call the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

Sincerely,

Mingying(Emily) Zheng

M.A Candidate  
Cognition, Learning, and Development  
Department of Eduational Psychology  
University of Nebraska, Lincoln  
(312)-618-019

## APPENDIX C. ONLINE COLLEGE WRITING SURVEY

### 1). How I Feel About Writing (Liking Writing Scale, LWS) (4 questions)

Students have different attitude about writing. Please read the following and circle the number 1-5 that best describes your overall feelings about writing.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I enjoy writing.	1	2	3	4	5
I don't like to write.	1	2	3	4	5
Writing is fun.	1	2	3	4	5
I feel bad when I write.	1	2	3	4	5

### 2). Confidence About Writing (Self-Efficacy for Writing Scale, SEWS) (16 questions)

Students differ in how confident they are about various assignments and activities in courses. **In relation to writing**, rate how confident you are that you can do each of the following by indicating a probability of success from 0 (no chance) to 100 (complete certainty). The scale below is for reference only; you don't need to use only the given values. You may assign **any number** between 0 and 100 as your probability.

0	10	20	30	40	50	60	70	80	90	100
No Chance	Very Little Chance	Little Chance	50/50 Chance	Good Chance	Very Good Chance	Complete Certainty				

- I can spell my words correctly.
- I can write complete sentences.
- I can punctuate my sentences correctly.
- I can write grammatically correct sentences.
- I can begin my paragraphs in the right spots.
- I can think of many ideas for my writing.
- I can put my ideas into writing.
- I can think of many words to describe my ideas.
- I can think of a lot of original ideas.
- I know exactly where to place my ideas in my writing.
- I can focus on my writing for at least one hour.
- I can avoid distractions while I write.
- I can start writing assignment quickly.
- I can control my frustration when I write.
- I can think of my writing goals before I write.
- I can keep writing even when it's difficult.

### 3) Writing Problems/Failure And Writing Success Survey (Attributional Style Questionnaire for Writing, ASQ-W) (48 questions)

#### Directions

Try to imagine yourself in the following 12 writing situations. Half of them are bad/unsuccessful ones, half of them good/successful ones. If a situation like this happened to you, what would you think caused it?

For each situation, please do the following:

First, read each writing-related situation and try to vividly imagine it happening to you. Next, decide what you think would be the MOST LIKELY cause of the situation if it happened to you, and put the answer to the blank space provided for you. Finally, rate the cause of your failure or success on 3 dimensions.

- Whether it would have due to you or due to other people or circumstances.
- Whether it would have been under your control or out of your control.
- Whether it would happen again or not.

#### For example,

#### Imagine that you have a writing assignment and

1. Imagine that you have a writing assignment and *you don't know how to start it.*

A. For you, the most likely cause for this would be: (ONE most likely cause)

I don't understand the topic; OR the topic is hard; OR I have no ability; OR I am not in good mood; OR I didn't study hard; OR the instruction is unclear. (Please use your own words and own ideas to answer the question regarding causes)

B. Is the cause because of you or due to other people or circumstances? (circle one number)

<i>Totally due to</i>	0 1 <u>2</u> 3 4 5 6 7 8 9 10	<i>Totally due</i>
<i>me</i>		<i>other people or circumstances</i>

C. In the future will this cause be present again? (circle one number)

*Never* 0 1 2 3 4 5 6 7 8 9 10 *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

<i>Totally</i>	0 1 <u>2</u> 3 4 5 6 7 8 9 10	<i>Out of my control</i>
<i>under my control</i>		

## A. WRITING SUCCESS

Imagine that you have a writing assignment and

### 1. You have no difficulty starting it.

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

### 2. You can find related the resources you need to write it.

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**Imagine that you have a writing assignment and**

**3. You know how to ask for help when you get stuck.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**4. You get it done on time.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**Imagine that you have a writing assignment and**

**5. You have finished it, and you're satisfied with your work.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**6. You get a satisfactory grade (A) on it.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

## B. WRITING PROBLEMS OR FAILURE

Imagine that you have a writing assignment and

### 7. You don't know how to start it.

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*                      0 1 2 3 4 5 6 7 8 9 10                      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*              0 1 2 3 4 5 6 7 8 9 10              *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10              *Out of my control*

### 8. You can't find the resources you need to help you write it.

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*                      0 1 2 3 4 5 6 7 8 9 10                      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*              0 1 2 3 4 5 6 7 8 9 10              *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10              *Out of my control*

**Imagine that you have a writing assignment and**

**9. You get stuck in it, and you don't know how to seek help.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**10. You don't get it done on time.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control*      0 1 2 3 4 5 6 7 8 9 10      *Out of my control*



**Imagine that you have a writing assignment and**

**11. Although you have finished it, you're not satisfied with your work.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**12. You get an unsatisfactory grade (D) on it.**

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to*  
*me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due*  
*other people or circumstances*

C. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

D. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally*  
*under my control*   0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

**4). Demographic Information and Grades (6 questions)**

**Gender:** Male \_\_\_\_\_ Female \_\_\_\_\_

**Age:** 19-24 \_\_\_\_\_ 25-34 \_\_\_\_\_ 34 or older \_\_\_\_\_

**Primary spoken language:** \_\_\_\_\_

**Ethnicity:** African American \_\_\_\_\_ Asian/Pacific Islander \_\_\_\_\_  
Caucasian \_\_\_\_\_ Latina/Latino \_\_\_\_\_ Native American \_\_\_\_\_ Other \_\_\_\_\_

**The grades on my writing assignments in my English class this year are all or mostly all:**

A+ A A- B+ B B- C+ C C- D+ D D- F

**The grades on my writing assignments in my other classes this year are all or mostly all:**

A+ A A- B+ B B- C+ C C- D+ D D- F

**APPENDIX D. THE ATTRIBUTIONAL STYLE QUESTIONNAIRE FOR  
WRITING (ASQ-W)**

*Hypothetical Good Academic Writing Situations*

1. You have a writing assignment and you have no difficulty starting your writing.
2. You have a writing assignment and you can find the related resources you need to write your paper.
3. You have a writing assignment and you ask for help when you get stuck.
4. You have a writing assignment and you get the paper done on time.
5. You have a writing assignment and you have finished writing it, and you're satisfied with your work.
6. You have a writing assignment and you get a satisfactory grade (A) on it.

*Hypothetical Bad Academic Writing Situations*

7. You have a writing assignment and you don't know how to start it.
8. You have a writing assignment and you can't find the resources you need to help you write it.
9. You are stuck in writing an assigned paper and don't seek help.
10. You have a writing assignment and you miss the deadline.
11. You have a writing assignment and although you have finished it, you are unsatisfied with your work.
12. You have a writing assignment and you get an unsatisfactory grade (D) on it.

A. The ONE major cause: \_\_\_\_\_

B. Is the cause because of you or due to other people or circumstances? (circle one number)

*Totally due to me*      0 1 2 3 4 5 6 7 8 9 10      *Totally due other people or circumstances*

C. Is the cause due to something that is under your control or out of your control? (circle one number)

*Totally under my control* 0 1 2 3 4 5 6 7 8 9 10      *Out of my control*

D. In the future when writing an assigned paper, will this cause be present again? (circle one number)

*Never*      0 1 2 3 4 5 6 7 8 9 10      *Always*

**APPENDIX E. INFORMED CONSENT FOR COLLEGE WRITING  
SURVEY**



COLLEGE OF EDUCATION AND HUMAN SCIENCES  
Educational Psychology

**INFORMED CONSENT FORM**

**Title of Research:**

*Development and validation of a measure of attributions for writing success and failure*

**Purpose of Research:**

The purpose of the study is to develop and validate an instrument to assess writing attributional style among college students. You must be 19 years of age or older to participate. You are invited to participate in this study because you are a student in an Educational Psychology (EDPS) course at the University of Nebraska--Lincoln.

**Procedures:**

Participation in this study will require approximately 20--30 minutes. You will be asked to respond to an online survey which includes 4 different questionnaires with a total of 76 questions. These four questionnaires are 1) 8 questions about your demographic information, your grades, in different writing assignments, your name, and your class time sections, 2) 48 questions about your attributional style for writing success and writing failure, 3) 4 questions about how you feel about writing, 4) 16 questions about your confidence about writing. Recruitment will take place in student classes. Completion of this online measure by participants will take place at UNL, at home, or at another location of the participant's choosing.

**Risks and/or Discomforts:**

No known risks have been identified in the research literature for studies of attributional style. To the researchers' knowledge, this study does not include any sensitive questions. No physical tasks are required of participants. Thus, our judgment is that risks are minimal. The only risk would be this: the participants can be identified either directly or indirectly from the data since the questionnaire will only be administered in five classes, if samples in a certain category are too small, the related participants would be likely identified directly or indirectly. I would consult my project advisor whether I should use this related small samples or not.

**Benefits:**

Completing the research is credited toward completion of the course research participation requirement. Participants will accrue no other benefits from participating in

this research, other than the knowledge they are contributing to the quantitative study of writing attributional style among college students.

**Confidentiality:**

Your responses to this survey will be kept confidential. The information in the survey will mainly be used for data collecting. Records will be kept in the locked cabinet in her bedroom. The identifiable information such as participants' names and their class time sections will be used to notify their instructors of their research participation. This part of information will be deleted before data analysis begins.

**Compensation**

You will receive one hour of credit for your research participation.

**Opportunity to Ask Questions:**

You may ask any questions concerning this research at anytime by contacting Mingying Zheng @ 312-618-0198 and email @ [emilyzheng7569@gmail.com](mailto:emilyzheng7569@gmail.com). You may also reach Professor Roger Bruning @ 402-472-2225 and email @ [rbruning1@unl.edu](mailto:rbruning1@unl.edu). If you want to speak to someone else, please call the Research Compliance Service Office at 402---472---6929 or [irb@unl.edu](mailto:irb@unl.edu).

**Freedom to Withdraw:**

Participation in this study is voluntary. You can refuse to participate or withdraw at anytime without harming your relationship with the researchers or the College of Education & Human Science, and the University of Nebraska-Lincoln, or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

**Consent, Right to Receive a Copy:**

You are voluntarily making a decision whether or not participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

Signature of Participant:

\_\_\_\_\_

*Signature of Research Participant*

\_\_\_\_\_

*Date*

**Name and Phone number of investigator(s)**

Mingying Zheng, Graduate, Principal Investigator Department Phone: (402) 472-2223  
 Roger H. Bruning, Ph.D., Project Supervisor Office Phone: (402) 472-2225

## APPENDIX F. IRB DOCUMENT

### University of Nebraska-Lincoln Institutional Review Board (IRB)

312 N. 14th St., 209 Alex West  
 Lincoln, NE 68588-0408(402) 472-6965  
 Fax (402) 472-6048  
[irb@unl.edu](mailto:irb@unl.edu)

#### FOR OFFICE USE ONLY

**IRB #:**

**IRB Decision Date:**

**Date Received:**

**Code #:**

**NUgrant Project ID: 12335**

#### 1. General Project Information

1. Project Title:

Development and validation of a measure of attributions for writing success and failure

2. Principal Investigator and 3. Secondary Investigator:

Principal Investigator:	Mingying Zheng emilyzheng7569@gmail.com	Secondary Investigator:	Roger Bruning rbruning1@unl.edu 402 472 2225
Department:	Department of Educational Psychology	Department:	Department of Educational Psychology

4. Type of Project:

Other

5. Does the research involve an outside institution/agency other than UNL?

No

6. Where will participation take place (e.g., UNL, at home, in a community building, schools, hospitals, clinics, prisons, unions, etc.)? Please specify and give location if not already listed above.

Recruitment will take place in student classes. Completion of this online measure by participants will take place at UNL, at home, or at another location of the participants choosing.

7. Briefly describe the facilities available for the research (e.g., there will be a quiet room in the school to conduct interviews, a secure lab space is available, etc).

A quiet lab/cubicle space is available for data analysis.

8. Present / Proposed Funding Source:

Self-funded.

9. Study Start Date

02/13/2012

10. Study End Date

03/02/2012

11. Is this a multi-institutional study?

No

#### 2. Project Information Continued

1. Does the research involve Prisoners?

No

2. Will the research only be conducted in schools or educational settings?

Yes

2.a. Does the research study involve only normal education practices (such as research on regular and special education instructional strategies, or research on effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.)?

Yes

3. Does the research involve only the use of educational tests, survey procedures, interview procedures, or observation of public behavior?

Yes

3.a. Does the research involve children (under 19 years of age)?

No

4. Does the research involve only the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens?

No

5. Does the research involve only studying, evaluating or examining public benefit or service programs?

No

6. Does the research involve only a taste and food quality evaluation or food consumer acceptance study?

No

7. Does the research present more than minimal risk to human subjects?

Yes

### 3. Description of Participants:

1. In the table below, please the estimated number of participants per category:

	Male	Female	Unspecified	Total
Adults	48	72	0	120
Children	0	0	0	0
Totals	48	72	0	120

2. Please indicate which special groups will be utilized/recruited for your study. Check all that apply.

UNL Students

3. Will participants of both sexes/genders be recruited?

Yes

4. Will participation be limited to certain racial or ethnic groups?

No

5. Describe the participant population to be included in this research and how they are selected, including any special characteristics targeted for inclusion.

One hundred twenty (120) undergraduate student volunteers enrolled in classes in the Department of Educational Psychology at the University of Nebraska-Lincoln (estimated distribution = 48 females, 72 males) will be recruited during the Spring 2012 semester.

These students are recruited because they must complete a general requirement for research participation in these classes and because we are interested in college students' writing attributions and their writing performance.

6. Describe your access to the population that will allow recruitment of the necessary number of participants.



EDPS 362 and EDPS 457 are certified as ACE courses. Students in these classes are required to complete a research requirement, typically by reviewing a publication in research literature in educational psychology or by participation in research studies offered for their consideration. The current study is one such research study.

7. The research plan should have adequate provisions to protect the privacy interests of participants. Explain provisions to protect privacy interests of participants. This refers to how investigators will access private information from or about participants during and after their involvement in the research (e.g., time, place, etc. of research procedures) Participant responses will be strictly confidential. Information from the survey will only be used for the two purposes (1) to provide data for the current study, and (2) to notify participants' instructors about their research participation. Identifiable information such as participants' names and class time sections will be removed before data analysis begins. The records will be kept for three years after the study is completed. The data will be stored in a locked cabinet in the principal investigator's bedroom. The data will only be seen and used by the investigators for the purpose of study only. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported as aggregated data.

8. Describe your process to ensure that all persons assisting with the research are adequately informed

The link to the questionnaire will be sent to the students directly by the principal investigator upon the consent of students, and the approval of Dr. Kauffman in the department of educational psychology, who supervises instruction in EDPS 362 and 457. Instructors for these two classes, who are doctoral students in educational psychology, generally encourage their students to participate in research such as this to gain some research experience. A hard copy of informed consent forms will be distributed to participants 3 days prior to the web-based questionnaires being made available online to the participants. Participants will be informed that they have a right to ask questions and to have those questions answered. The names and phone numbers of persons to contact for answers to questions about the research will be provided. The statements like "sometimes study participants have questions or concerns about their rights, in that case you should call the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965", "you are free to decide not to participate in this study", "you can also withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln", "participation is voluntary" will be noticed to the participants.

9. If not already described above, will any groups or categories of participants be excluded from this research?

No

10. Will some or all subjects likely be vulnerable to coercion or undue influence?

No

#### **4. Unique Research Methodology or Data Sources**

1. Will your project involve audiotaping?

No

2. Is this project web-based research?

Yes

2.a. For web-based studies, how will the data be handled? Will the data be sent to a

secure server? Will the data be encrypted while in transit? Will you be collecting IP addresses?

The data will be directly sent to the UNL Qualtrics. IP addresses will be collected automatically. Once all the data are collected and exported, the IP addresses will be deleted immediately and no record of the IP addresses will be saved. The data will be encrypted while in transit. The data will only be seen and used by the investigators for the purpose of study only.

3. Is this study utilizing Protected Health Information (PHI; e.g., information obtained from a hospital, clinic, or treatment facility)?

No

4. Does this project involve genetic data, sampling, or analysis?

No

5. Does this project ask questions about illegal drug use or criminal activity that places the participant at risk for legal action?

No

6. Does this project involve photography?

No

7. Does this project involve videotaping?

No

8. Does this project involve archival or secondary data analysis?

No

9. Does this project involve biological samples?

No

10. Does this project ask participants to perform physical tasks?

No

### **5. Purpose, Methods, & Procedures Describe the research purpose of the project**

1. What is the significance/purpose of the study? (Please provide a brief 1-2 paragraph explanation in lay terms, to include a brief literature justification.)

Shortly after research on attribution theory blossomed, instruments were developed to assess attributional style—a cognitive personality variable that reflects the habitual manner in which people explain the causes of both good and bad events, especially bad events/failures that befall them (Peterson & Seligman, 1984). Some instruments were developed to assess attributional style that applies across a variety of situations such as Attributional Style Questionnaire (ASQ; Peterson et al., 1982), etc. Others were more specific measures of attributional style such as Academic Attributional Style Questionnaire (AASQ; Peterson & Barrett, 1987), etc. To date, however, no measure has been developed to assess students' attributional style about writing in a college setting. Because writing is a complex cognitive task (Bruning, 2004) that is often intimidating to college students, an instrument to assess the causes for writing success and writing failure is needed. The purpose of the study is to develop and validate an instrument to assess writing attributional style among college students.

#### **Description of the Methods and Procedures**

2. Describe the data collection procedures and what participants will have to do.

Participants will read an informed consent document, so that they are aware of the study and their rights as participants. Participants who grant informed consent will be given a link to an online survey which includes a total of 76 questions. The survey questionnaire

is included in section 9. After the survey is completed, participants will be thanked for their time.

3. How long will these procedures take the participants to complete? Please describe the duration of the session, the number of sessions, over what period of time, etc.

Based on completion times by volunteers, participants will take 20-30 minutes to complete this online survey. The duration of the survey session will last two weeks starting from the day when the survey is sent electronically to the participants.

The proposed time session will start from Feb. 13 to Mar. 2, 2012, I will be available to answer any questions by the participants either by email or by phone.

4. Will there be any follow-up or will reminders be sent?

No

5. Differentiate any procedure being done solely for research purposes from procedures being done anyway.

The whole survey consists of 76 questions, 74 questions are required to be answered or responded for the purpose of research. Two questions to identify the participants' name and class section/time—need to be answered by participants to permit notification of participants' instructors their research participation.

6. Describe the time you have available to conduct and complete the research (ex. the time from initiation of the research to completion of data analysis).

From Feb.13 to Mar.20, 2012.

### **6. Description of Recruiting Procedures**

1. How will the names and contact information for participants be obtained?

This web-based questionnaire will be made available to volunteer undergraduate participants enrolled in EDPS 362, and EDPS 457 in the department of educational psychology at UNL. The survey will be administered under the permission of the Department of Educational Psychology, UNL, and the approval of the course supervisor (Dr. Kauffman), the instructors, and participants. These two courses are taught by the CLD teaching assistants and supported by the CLD faculty in the department of educational psychology. The instructors of these two courses are supervised by Dr. Kauffman. Conceivably, the instructors can choose not to allow recruitment in their class or students can refuse to participate in this research, but most typically volunteer for opportunities like this to complete their research requirement.

2. How will participants be approached about participating in the study?

A hard copy of informed consent will be sent out to the participants 3 days prior to the sending of the first online questionnaire when they will attend their classes. Meanwhile, a pre-notice letter will also be sending to them the same day, I will thank them in advance that their participation and contribution is important to help them learn about psychological research, and also help us learn more about the judgments that the college students make about why they are successful or unsuccessful in their writing.

### **Description of Benefits and Risks**

3. Explain the benefits to participants or to others.

Participants will accrue no other benefits from participating in this research, other than the knowledge they are contributing to the quantitative study of writing attributional style among college students.

4. Explain the risks to participants. What will be done to minimize the risks? If there are no known risks, this should be state

No known risks have been identified in the research literature for studies of attributional style. To the researchers' knowledge, this study does not include any sensitive questions. No physical tasks are required of participants. Thus, our judgment is that risks are minimal. The only risk would be this: the participants can be identified either directly or indirectly from the data since the questionnaire will only be administered in five classes, if samples in a certain category are too small, the related participants would be likely identified directly or indirectly. I would consult my project advisor whether I should use this related small samples or not.

5. Describe the availability of medical or psychological resources that participants might require as a consequence of the research.

N/A

6. Will compensation (including money, gift certificates, extra credit, etc.) be provided to participants?

Yes

6.a. . Please describe the amount and type of compensation.

Completing the research is credited toward completion of the course research participation requirement. One hour of credit will be offered to the participants. This compensation (one hour of research participation credit ) was previously listed in the syllabus (Spring 2012 semester) as a course requirement.

### **7. Informed Consent Process**

1. How will informed consent/assent be obtained?

Informed consent for the project will involve first presenting the participant with an "Informed Consent" document, which explains the research and provides the participant with the opportunity to participate. The online survey cannot be accessed without affirmatively granting informed consent by the participant.

Informed consent of the project will involve providing the participant with an informed consent document before the beginning of the online survey. The survey will be responded only if the participant understands the form and affirmatively grants informed consent.

2. Who will conduct the consent interview?

The principal investigator.

3. Who will provide consent or permission?

Participants themselves.

4. What is the waiting period, if any, between informing the prospective participant and obtaining consent?

3 days.

5. What steps will be taken to minimize the possibility of coercion or undue influence?

In the pre-notice letter, I will state that: You are free to decide not to participate in this study. You can also withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln. If you have questions or concerns about your rights, in that case you should call the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

6. What is the spoken language used by those obtaining consent?

English.

7. what is the language understood by the prospective participant or the legally authorized representative?

English.

8. Will any subjects be decisionally impaired so that they may not have the capacity to give consent?

No

9. In certain cases for children over the age of 14, such as UNL students who are 17 or 18, waivers of informed consent can be granted. Would you like to request a waiver of consent?

No

### **8. Confidentiality & Data Description of How Confidentiality will be Maintained**

1. The research plan should make adequate provisions to maintain the confidentiality of the data. How will confidentiality of records be maintained?

The responses will be strictly confidential, the information in the survey will mainly be used for data collecting. Records will be kept in the locked cabinet in her bedroom. The identifiable information such as participants' names and their class time sections will be used to notify their instructors of their research participation. This part of information will be deleted before data analysis begins.

2. Will individuals be identified during data collection or in the results?

No

3. How long will records be kept?

The records will be kept for three years after the study is completed.

4. Where will records be stored?

The data will be stored in the investigator's locked cabinet in her bedroom.

5. Who has access to the records/data?

The data will only be seen and used by the investigators for the purpose of study only.

6. How will data be reported?

The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported as aggregated data.

### **Monitoring of data to ensure safety**

7. Does this research involve more than minimal risk to participants?

No

### **9. Attachments and Comments**

#### **Copies of questionnaires, survey, or testing instruments:**

Uploaded Attachments:

Thesis Pre-notice Letter.pdf

Thesis Verbal Script for Recruitment.pdf

Informed Consent For College Writing Survey.pdf

Complete ASQ for academic writing.pdf

#### **Comments**

Comment: Ms. Zheng and Dr. Bruning,

Your project has been approved. You are authorized to begin data collection.

1. The approved informed consent forms have been uploaded to NUgrant (files with - Approved.pdf in the file name). Please use these forms to distribute to participants. If you need to make changes to the informed consent forms, please submit the revised forms to the IRB for review and approval prior to using them.

Your official approval letter will be emailed to you and uploaded to NUgrant shortly.

Good luck with your research!

Becky Freeman 472-8127 bfreeman2@unl.edu