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The Moderating Effects of Psychological Capital on the Relationship Between Work-School Facilitation and Work-School Conflict and Student Study Engagement and Performance

Lucas G. Koperski
St. Cloud State University, kolu0901@stcloudstate.edu

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by

Lucas G. Koperski

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Jodi Illies
Edward Ward

Abstract

This research study is interested in further understanding the predictor variables of psychological capital, work-school facilitation, and work-school conflict and their relationship to academic outcomes and study engagement. Specifically, this research explores the moderating effects of psychological capital on the relationship between work-school facilitation, work-school conflict and school performance and study engagement. Previous research has concluded that psychological capital is related to academic performance (Luthans, Luthans, & Jensen, 2012). Further, work-school facilitation and work-school conflict have been found to be related to study engagement (Butler, 2007). It is therefore hypothesized that psychological capital could potentially reduce the negative impact that work-school conflict has on academic performance. Also, psychological capital could potentially act as an amplifier between the already established positive relationship between work-school facilitation and study engagement. The results have implications for the university setting, suggesting that increasing psychological capital and improving the congruence between the work and school-work roles can lead to an increase in academic performance among university students.

Keywords: Psychological capital, work-school facilitation, work-school conflict, academic performance

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Introduction

There has been an increased interest in the realm of positive psychology in recent years. For instance, a recent electronic search in "JSTOR" using the keywords "positive psychology" elicits over 180,000 hits that use this key phrase. This is impressive considering the field of positive psychology is relatively new in contrast to some of the more traditional fields in psychology. This new realm of research is concerned with identifying and capitalizing on individual strengths, rather than the more traditional psychological focus of identifying and changing weaknesses and deficiencies.

Positive psychological constructs have been found to be related to many important workplace outcomes such as: engagement (Avey, Wernsing, & Luthans, 2008), performance (Luthans, Avolio, Avey, & Norman, 2007), satisfaction (Larson & Luthans, 2006; Luthans, Avolio, Avey, & Norman, 2007), well-being (Luthans, Youssef, Sweetman, & Harms, 2013), and commitment (Larson & Luthans, 2006). However, there is much less research regarding positive psychology and academic outcomes. The scarce research that has been conducted tends to focus on academic outcomes such as student engagement, school performance, and study behaviors (Luthans, Luthans, and Jensen, 2012; Siu, Bakker & Jiang, 2014). Since the majority of students who graduate college will eventually end up in the workforce, it seems prudent to identify the positive characteristics of these students and to continue to develop an academic environment in which these characteristics can be facilitated. Much interest has been placed on whether or not working while attending school full-time facilitates or hinders academic performance (Butler, 2007). Issues such as congruence between work and school material and time spent on work versus school have been examined through theories related to work-school facilitation and work-school conflict (Butler, 2007). Identifying the positive psychological

resources in university students that relate to important academic outcomes can help guide universities in facilitating programs and curriculum development that fosters these resources. Also, culminating an environment that enables growth between academia and work can help universities develop effective internship programs and work-study programs. If the main goal of universities is to prepare students for the workforce, then identifying and developing these important psychological resources and facilitative environments seems critical for the success of future graduates.

The current research attempts to bridge this gap by examining the potential moderating effects that psychological capital has on the relationship between work-school facilitation, work school-conflict and student performance and study engagement.

Positive Organizational Behavior and Psychological Capital

Positive psychology is a growing body of research that has been gaining momentum for the past ten years. The basic premise behind positive psychology is adequately summed up by Peterson (2006), "what is good about life is as genuine as what is bad and therefore deserves equal attention" (p. 527). This statement is in regards to an emerging trend in psychology to focus on developing and identifying strengths rather than focusing on individual weaknesses (Luthans, 2004).

Positive organizational behavior (POB) represents a relatively new stream of research developed from a positive psychology standpoint and is characterized by a positive approach to developing and managing human resources (Luthans et al., 2007). Luthans (2002, p. 54) defines POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace". In order to be considered a psychological

resource capacity within the POB framework, these constructs must meet five sets of inclusion criteria (Luthans, 2002; Luthans et al., 2007). First, the construct must be grounded in theory and research. Second, each construct must be measured through the use of reliable and valid measures. Third, they must be relatively unique to the field of organizational behavior. Fourth, the constructs must be viewed as state-like and thus open to development and change, as opposed to a fixed trait. Fifth, it must have a positive impact on work-related individual-level performance and satisfaction. Based on this inclusion criteria, four psychological constructs have been identified including hope, resilience, optimism, and self-efficacy (HERO), and together, are seen as a higher-order construct termed psychological capital or PsyCap (Luthans et al., 2007). Each of these constructs are grounded in strong theory derived from Positive Organizational Behavior literature and research (Luthans, 2015). Luthans and his colleagues' development of the Psychological Capital Questionnaire (PCQ) demonstrates both a reliable and valid way of measuring PsyCap (Luthans, Youssef-Morgan, & Avolio, 2015). Luthans et al. (2015, p. 23) states; "the number of formal requests for using our PsyCap measures was approaching 2,000" at the beginning of 2015, indicating other researchers view this measure as a reliable and valid instrument.

PsyCap has been defined as "an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans, Youssef, & Avolio, 2007, p. 3). PsyCap can be viewed as an extension of the more well-known resources

such as economic capital (what you have), human capital (what you know), and social capital (who you know), and consists of who you are and what you can become (psychological capital) (Luthans, Luthans, & Luthans, 2004).

Coinciding with the inclusion criteria, PsyCap represents state-like components rather than trait-like components, indicating they have developmental growth opportunities (Luthans et al., 2007). Luthans et al. (2007) performed a study in which PsyCap, core self-evaluations, conscientiousness, and positive emotions were measured once at time-1 and one month later at time-2. These researchers calculated the test-retest reliability of PsyCap compared to positive emotional states and the "trait-like" core self-evaluation and conscientiousness. As anticipated, Luthans and his colleagues found higher test-retest reliabilities for conscientiousness (.76) and core self-evaluations (.87) compared to PsyCap (.52) and the positive emotions measure (.46). This study appears to at least support the notion that PsyCap represents a "state-like" construct, which is distinct from the "trait-like" personality constructs and core self-evaluation. Support for the developmental nature of PsyCap has been demonstrated through short interventions by numerous researchers in the last few years (Luthans, Avey, & Patera, 2008; Luthans, Luthans, & Avey, 2014). Luthans et al. (2008) were able to provide significant support regarding the developmental opportunity of working adults PsyCap. These adults participated in a pretest-posttest control group experimental design. The treatment group (n = 187) received a 2-hour online training intervention, and the control group (n = 177) received a different but similar online training. Effect sizes for the difference from Time 1 to Time 2 for the treatment group was d = .191 (r = .095), while effect sizes for the control group differences between Time-1 and Time-2 was d = -.042 (r = -.084) (Luthans et al., 2008). Additionally, the authors performed an ANCOVA controlling for the effect of PsyCap at Time-1, which revealed the group variable

(treatment or control) to be predictive of PsyCap at Time-2 (p = .001). Luthans, Avey, Avolio, and Peterson (2010) used the same intervention technique on volunteer participants (n = 242) recruited through a university study. These researchers found a significant increase in PsyCap from Time-1 to Time-2 for the treatment group (Time 1 M = 4.61 and Time 2 M = 4.81, t[152] = 5.16, p = < 0.001), and nonsignificant results for the control group. In other words, these authors successfully "developed" these working adults PsyCap through a 2-hour online intervention, thus providing further evidence of the "state-like" malleable nature of PsyCap. Luthans et al. (2008) believe that there is a trait-state continuum that spans from pure and concrete "positive traits" that are characterized by stability over time and across situations, these are traits that are deemed as "hardwired" such as intelligence or other hereditary characteristics. Trait-like constructs are those that refer to relatively stable characteristics such as conscientiousness, extraversion, agreeableness, etc., and tend to be rather fixed, but have been shown to change minutely over time (Luthans et al., 2008). Toward the opposite end of the continuum from the pure traits is state-like psychological resources such as PsyCap (Luthans et al., 2008). These state-like traits (hope, self-efficacy, resilience, optimism) tend to be more malleable and thus developmental, such that individuals can have differing levels of these components depending on the situation, time, etc.

PsyCap has been found to be related to numerous important organizational outcomes such as work engagement (Luthans et al., 2007), performance (Cetin, 2011), well-being (Thompson, Lemmon & Walter, 2015), and job satisfaction (Youssef-Morgan & Luthans, 2015). PsyCap has been shown to have stronger relationships with the aforementioned outcomes than the individual components of the construct (Luthans et al., 2007), indicating PsyCap is indeed a higher-order construct that may represent the synergistic effects of these four constructs. In other

words, the whole (PsyCap) may be greater than the sum of its parts (resiliency, self-efficacy, hope, optimism). In their quest to support the notion that PsyCap is a higher-order construct, Luthans et al. (2007) performed a series of regressions to determine if the higher-order construct PsyCap predicts more variability in performance and satisfaction than each of its individual components. Their results from a sample of 404 undergraduate students indicate PsyCap to be predictive of performance above and beyond hope ($R^2\Delta = .03$, $p < .01$), resilience ($R^2\Delta = .03$, $p < .01$), optimism ($R^2\Delta = .19$, $p < .01$), and efficacy ($R^2\Delta = .04$, $p < .01$). These researchers used the same sample and method to demonstrate PsyCap to be predictive of satisfaction above and beyond hope ($R^2\Delta = .05$, $p < .05$), resilience ($R^2\Delta = .13$, $p < .01$), optimism ($R^2\Delta = .16$, $p < .01$), and efficacy ($R^2\Delta = .09$, $p < .01$). These results support the notion that PsyCap is a higher-order construct in terms of predictive validity, which represents the synergistic effects of its components. The synergistic effects of these components enable PsyCap to predict important workplace and academic outcomes to a greater extent than its individual sub-factors.

Recent research has supported the relationship between PsyCap and important academic outcomes such as study engagement (Luthans, Luthans & Jensen, 2012) and academic performance (Siu et al., 2014) in the university setting. For example, Luthans, Luthans, and Jensen (2012) conducted a study using 95 undergraduate students to examine the relationship between PsyCap and GPA. Using stepwise regression analysis, a significant positive relationship between PsyCap and GPA was found, explaining nearly 7% of the variance (adjusted $R^2 = .069$, $p < .01$). Further evidence of PsyCap predicting positive school outcomes stems from a study performed in Hong Kong using a cross lagged sample of 100 students (Siu et al., 2014). These researchers first performed a CFA to determine the fit of the data into four higher-order factors, and found excellent fit using a Chi square test (Siu et al., 2014). Next, PsyCap Time-1 was found

to be positively related to study engagement at Time-2 (r = .41, p < .05), demonstrating the significant impact PsyCap may play in student study habits. Subsequently, using a bootstrapping method these researchers found intrinsic motivation partially mediated the relationship between PsyCap and study engagement (bootstrap estimate = .35, SE = .19, lower CI = .12, higher CI = .86, p < .01) (Siu et al., 2014). These examples illustrate the positive impact PsyCap has on important school-related outcomes, and invariably, work-related outcomes. The individual HERO constructs and their connection with school and work related outcomes will be discussed further in the next section.

HERO

Hope, self-efficacy, resilience, and optimism must meet a stringent set of inclusion criteria to be considered positive organizational behavior constructs. The following section will discuss these guidelines and provide support that the HERO constructs meet the required criteria.

Hope is defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p. 287). This definition views hope as two-fold, including an individual's agency (or willpower) and pathway (or waypower). In other words, it is an individual's capacity to gain the energy necessary to complete goals, and have the wherewithal to identify multiple and different paths to accomplish those goals. This definition parallels many important work and school related demands, and has considerable performance implications in both realms (Luthans et al., 2007; Luthans & Jensen, 2002; Luthans & Youssef, 2004). Snyder et al. (2002) found hope to be significantly correlated with overall grade point average in a 6-year longitudinal study of 213 college freshman (r = .21, p < .01). Further, Curry, Snyder, Cook, Ruby, & Rehm, (1997) found hope to be significantly predictive of college athletes grade point

average (R^2 = .08, p < .001) using a quasi-experimental design of 170 students and student athletes. These findings indicate hope to be a lucrative realm of investigation for its impact on academic outcomes. Luthans et al. (2015) claims that hope is recognized as a developmental state, and thus can be enhanced or developed by teaching individuals how to set "stretch" goals, use contingency planning, and goal realignment when goals do fail. Utilizing these steps can help increase a persons hope and decrease the chance of false hope.

Self-efficacy is the second psychological resource, and arguably the best fitting by way of the appointed POB inclusion criteria of PsyCap. Self-efficacy is a positive belief defined as "one's belief about his or her abilities to mobilize the motivation, cognitive resources or courses of action needed to successfully execute a specific task within a given context" (Stajkovic & Luthans, 1998b, p. 66). Self-efficacy is similar to hope in that it is a goal-directed cognitive process, but distinct in that efficacy demands a certain level of confidence regarding accomplishing a tasks in a specific domain (Luthans, Youssef-Morgan, & Avolio, 2015). Researchers have determined that individuals are more or less self-efficacious within certain domain specific tasks, thus someone may be very self-efficacious when it comes to sports, but much less self-efficacious when it comes to writing a school paper. Luthans et al. (2015) illustrate that another major conceptualization of self-efficacy stems from a person's confidence in accomplishing a set of domain specific tasks, and confidence typically stems from how much a person has practiced and/or mastered the task in question. Mastering tasks through repetition and practice helps to develop and identify the cognitive resources needed to succeed in accomplishing future goals and tasks, and accomplishing these goals leads to an increase in motivation and confidence to accomplish the next goal or task. Luthans et al. (2015) have found optimistic results attempting to increase individual's self-efficacy at specific tasks using

vicarious learning or modeling, and positive feedback. Stajkovic and Luthans (1998a) performed a meta-analysis that revealed a significant positive correlation ($r = .38$, $p < .05$) between self-efficacy and work performance. In relation to academic outcomes, Pajares (1995) found math self-efficacy to be significantly related to mathematical performance in a sample of high-school student's ($R = .70$, $p < .001$). Also, in a study of 76 postgraduate students Lane and Lane (2001) found self-efficacy accounts for 11.5% ($p < .05$) of postgraduate's academic performance (grades). It is clear from these results that self-efficacy plays a pivotal role in maintaining the confidence necessary to perform well in school.

Resilience is probably the least frequently studied component of the HERO constructs. The majority of existing research lies with clinical psychologists analyzing at-risk children and dysfunctional families (Luthans et al., 2015). More recently, positive psychology has decided to take hold of this construct and apply it to the workplace in terms of overcoming and even "bouncing back" from perceived obstacles and failures. Luthans (2002, p. 702) describes resiliency in the workplace as the "capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility", which is similar to Masten's (2001) definition where resilience consists of positive coping and adaption in the face of risk or adverse situations. Both of the definitions provided view resilience as a vehicle for 'bouncing back' and adapting in the face of some obstacle or setback. Luthans' definition, as it pertains to PsyCap takes on a secondary characteristic where individuals exhibit some subsequent growth or learning as a result of experiencing the setback. In this case, individuals do not only bounce back to "normal" but use the adverse situation to springboard their growth and development beyond homeostasis (Luthans et al., 2015). It is important to note that resilience is the only HERO capacity that is reactive, rather than proactive, indicating the need for resilience

is contingent upon some other action or event (Larson & Luthans, 2006). As mentioned earlier, resilience in the workplace has not been studied extensively, but early research is promising. Larson and Luthans (2006) found a significant positive relationship between resilience and 74 factory workers job satisfaction and organizational commitment (r = .253, p = .036, r = .251, p = .038, respectively). Furthermore, Maddi (2002) conducted a study of over 13,000 employees going through a downsizing effort, and found that resilient employees maintained their health, happiness, and performance in the face of significant stressors, whereas non-resilient employees saw a dramatic decrease in these outcomes. It seems resilience can be a helpful tool for employees when they are facing adverse situations that require adaption and flexibility. There is considerably less research regarding resilience and academic outcomes, but Wilks (2008) found a significant negative correlation between the resilience and academic stress (r = -0.38, p < .01) of 314 undergraduate and graduate students. This last finding indicates an increase in resources (psychological & social) can assist individuals overcoming obstacles and accomplishing goals. Future research is needed to determine resiliencies impact on workplace and academic outcomes.

Optimism is commonly referred to as one's positive evaluation about the world in a positive light. Although, optimism has a very different and specific meaning as a psychological resource; Seligman (1998), drawing from attribution theory defines optimists as "those who make internal, stable, and global attributions regarding positive events (e.g., task accomplishment) and those who attribute external, unstable, and specific reasons for negative events (e.g., a missed deadline)." An optimist internalizes positive events so that they believe they are the cause and in control of the positive event, and conversely, these individuals believe negative events are out of their control, temporary, and situation specific; thus they continue to have a positive outlook on their future (Luthans et al., 2015). The way in which these optimists

attribute and explain events (internal vs. external) help them to remain confident and hopeful about the future. Building from this definition, it is important to distinguish realistic optimism from unrealistic optimism (Luthans, 2002). Optimism should be realistic in terms of its context, because being overly optimistic can have detrimental consequences when unrealistic expectations are present and anticipated. Realistic optimism coincides with efficacy and hope in that it includes an evaluation of what one can and cannot accomplish in a particular situation (Luthans et al., 2007). Considering the ever-changing workplace of today, optimism should be expected to continue to be an important determinant of workplace performance. Consider a downsizing initiative taken on by a firm in which hundreds of workers are being laid-off. In this instance, having the remaining workers be highly optimistic could be an essential component to assist in this large-scale change, because these individuals will understand that the change is out of their control and the circumstances are temporary. Optimistic individuals will internalize the reason for why they are still at the company, associating it with their hard work and effort, which can result in these individuals accepting and championing the idea of downsizing for the good of the firm. As far as optimism in the academic setting, Hoy, Tarter, and Hoy (2006) present an empirical study utilizing a sample from 96 high schools and found via structural equation modeling that social economic status was related to student achievement directly ($r = .20$, $p < .05$), as well as indirectly through academic optimism ($r = .19$, $p < .05$). Considering the vast amounts of information students are expected to learn in todays university setting, it seems prudent to develop individual's optimistic resources so that they can thrive in the face of success and failure.

The preceding section has focused on defining and relating the individual PsyCap components to workplace and academic outcomes. It is important to understand these resources

and their theoretical foundations as they relate to positive psychology and PsyCap. Each of these resources are distinct in their definitions and relationship to important outcomes. However, it is important to remember that they are also intertwined so as to produce a "synergistic" effect, where together, these constructs have a greater effect on performance; when compared to the effect an individual component has on performance (Luthans et al., 2015). This effect is what classifies PsyCap as a higher-order construct, where each individual HERO component is seen as a latent construct. In the present study, we are interested in PsyCap as a higher-order construct and its relation to important academic outcomes.

Work-school facilitation

Work-school facilitation (WSF) and work-school conflict (WSC) theories are derived from work-life balance literature, stemming back over 50 years. These resource based theories are largely based on Hobfall's (1989) conservation of resources theory (COR). Hobfall (1989) presents the basic premise of COR theory as "people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources" (p. 516). Furthering this definition, individuals attempt to acquire and maintain resources (Grandey & Cropanzano, 1999) to help them attain goals. The accumulation of many resources in different areas allows individuals to cope with stress more efficiently, thus enabling them to better deal with the demands they may encounter throughout their life (Luthans et al., 2004). Resources can be tangible or psychological, real or perceived, and are typically classified as economic capital, social capital, human capital, and psychological capital.

WSF is a resource expansion model, where the accumulation of resources in one domain can lead to enhanced use of resources in another domain (Butler, 2007). Greenhaus and Powell (2006) also proposed that enriching resources through experience may be instrumental in

enhancing performance and positive emotions. The aforementioned criteria led Butler (2007) to develop work-school facilitation as a construct, defined as "improvement in the quality of the school role resulting from participation in work." Butler (2007) posited that if the material learned at school is congruent with the demands of work, then resources will be stored and conserved at a greater rate, resulting in increased performance and satisfaction. The idea behind this hypothesis is that similarities between roles can produce inter-role facilitation and enhance the experiences in those roles (Greenhaus & Powell, 2006). Butler (2007) found support for his hypothesis using 253 full time undergraduate students. They utilized an online survey method to distribute the independent variables partially consisting of WSF and WSC. The criterion variables of interest were school satisfaction, GPA, school effort, and school attendance (GPA, effort, and attendance were combined to form school performance). Butler (2007) found partial support for the hypothesis that WSF is related to increased school performance (GPA) and satisfaction ($r = .11$, $p > .05$, $r = .37$, $p < .01$, respectively). It is important to mention this insignificant relationship between GPA and WSF became significant in the SEM model when school performance was viewed as GPA, school effort, and school attendance (Butler, 2007).

McNall and Michel (2011) found evidence to support Butler's findings. These researchers sampled 314 employed college students and found work-school enrichment (WSF) to be related to job satisfaction ($r = .60$, $p < .01$), job performance ($r = .21$, $p < .01$), school attendance ($r = .18$, $p < .01$), GPA ($r = .14$, $p < .05$), and school satisfaction ($r = .34$, $p < .01$). The researchers also performed SEM and reported significant pathway indices from work-school enrichment to GPA ($\beta = .13$, $p < .05$), school satisfaction ($\beta = .23$, $p < .05$), and job satisfaction ($\beta = .82$, $p < .05$). The SEM results suggest that WSF could be predictive of both student performance and satisfaction. Butler (2007) and McNall and Michel's (2011) findings

demonstrate empirical evidence supporting the notion that it is at the very least beneficial for students to be in work roles that overlap with school roles, so as to facilitate the conservation and enhancement of congruent resources. Conserving resources through WSF should facilitate an environment allowing students to be more engaged in their school work and ultimately perform better on school related tasks.

Hypothesis 1a: Work-school facilitation is positively related to study engagement, school GPA, school satisfaction, and overall school performance.

Work-school conflict

Conversely, work-school conflict has to do with the depletion of resources because of dissimilarity between roles. This lack of congruence between roles requires individuals to use a different set of resources for each role, thus depleting an individuals resource reservoir and making it more difficult to maintain, acquire, and access these resources. Work-school conflict is defined by Markel and Frone (1998) as "interference in the school role by work role-related demands and responsibilities." Butler (2007) proposes that work requirements (time, energy, psychological strain) may consume resources that could otherwise be used for school requirements, thus resulting in poor academic outcomes. Support for Butler's (2007) proposal was partially found. WSC was significantly and positively related to job demands and work hours (r = .28, p < .01, r = .36, p < .01, respectively), however, WSC was unrelated to school satisfaction and partially related to school effort and attendance (r = -.09, p > .05, r = -.17, p < .05, r = -.11, p > .05, respectively). These results coincide with Markel and Frone (1998), who found that increased work hours (r = .24, p < .001) and demands (r = .29, p < .001) was related to increased WSC in 319 high-school students, which in turn was negatively related to decreased school performance (r = -.18, p < .01). Significant findings for WSC were also found in the

McNall and Michel (2011) study, providing further support that WSC has a meaningful relationship with the academic outcomes of attendance (r = -.24, p < .01) and school satisfaction (r = -.13, p < .05). The reoccurrence of significant negative correlations between WSC and school satisfaction and performance indicate WSC can have detrimental effects on student's academic outcomes. Some of the aforementioned findings suggest there may be an alternative mechanism that explains why and/or how WSC affects school performance and satisfaction. The current study attempts to further this research by studying the psychological resources that may be impacted through the facilitation or depletion of work-school congruence, and to further understand the mechanisms that could buffer against the negative outcomes of WSC.

Hypothesis 1b: Work-school conflict is negatively related to study engagement, student performance, and school satisfaction.

Psychological Capital and Academic Outcomes

Considering the vast amount of research published in such a short amount of time, it is surprising that PsyCap has not been studied in relation to academic outcomes to a greater degree. What little research is available suggests that PsyCap can be predictive of academic performance (GPA) and study engagement (Luthans et al., 2012; Siu et al., 2013). Luthans et al. (2012) performed a study using 95 undergraduate business students from a Midwestern university to determine if PsyCap is predictive of student GPA. The PsyCap measure was adopted to convey school related information rather than work information, and had an acceptable Cronbach's alpha of .90. A significant positive relationship was found between PsyCap and official GPA (r = .281, p < .01). Furthermore, PsyCap explained a significant amount of variance in a stepwise regression using GPA as a dependent variable (adjusted R^2 = .069, p < .01). These results complement the results of a study Siu et al (2013) performed on PsyCap, study engagement, and

intrinsic motivation. These researchers used 100 participants assessed at two different times on the independent variables of intrinsic motivation, PsyCap, and the criterion variable of study engagement. Results suggest a positive significant correlation between student PsyCap at time-1 and study engagement at time-2 ($r = .41$, $p < .05$). These results suggest PsyCap can be an important determinant of academic outcomes, and at least provide evidence for further investigation into this relationship. There exists scarce research on the relationship between PsyCap and student satisfaction. However, Luthans et al. (2007) found a positive relationship between PsyCap and job satisfaction in a sample of 115 manufacturing workers ($r = .32$, $p < .01$) and 144 service workers ($r = .53$, $p < .01$). From these results it is plausible to assume that student satisfaction could also be influenced by an individual's PsyCap.

The positive relationship between PsyCap and academic outcomes such as school performance and study engagement is rather intuitive; an increase in psychological resources (hope, self-efficacy, resilience, and optimism) lends individuals to be better prepared for stress, and to take a more productive approach when confronted with a stressful situation. In this instance school can be seen as a stressful situation where students are constantly having to meet deadlines, write papers, study for tests, etc., and by having numerous psychological resources to rely on, these individuals are better prepared to deal with these demands. Studying and attending class are coping skills used to reduce the stress of impending academic demands, thus it is proposed that those with high PsyCap will engage in these activities to a greater extent than those with lower PsyCap levels. These individuals will engage in these productive academic behaviors, because it will reduce the stress felt from upcoming deadlines and assignments. Also, a reduction in stress and a surplus of resources could lend itself to individual satisfaction, paralleling Luthans et al. (2007) findings on workplace satisfaction mentioned earlier. Thus, it is hypothesized that

PsyCap will be positively related to study engagement, academic performance (self-reported GPA & attendance), and school satisfaction.

Hypothesis 2: PsyCap will be positively related to study engagement, student performance (self-reported GPA & attendance), and school satisfaction.

PsyCap as a Moderator between WSC/WSF and SE/SP

WSF has been shown to be a predictor of increased school performance and satisfaction (Butler, 2007), while WSC has repeatedly been shown to interfere with academic performance and satisfaction (Butler, 2007; Markel & Frone, 1998; Abedayo, Sunmola & Udegbe, 2008). As mentioned, PsyCap has also been found to be predictive of academic performance and satisfaction (Luthans, Luthans & Jensen, 2012; Siu, Bakker & Jiang, 2013). If WSF and PsyCap lead to better overall academic outcomes, then it is possible that congruence between work and school (WSF), coupled with high levels of PsyCap could lead to increased positive academic outcomes. It is theorized that this interactive process would occur through the conservation of resources associated with performing similar tasks on the job and at work. Because PsyCap represents some of these important resources, it is likely WSF and PsyCap will interact to produce a larger effect on academic outcomes, compared to only having WSF or high levels of PsyCap. Based on existing evidence, it is plausible that positive academic outcomes could be effected through the interacting mechanisms of PsyCap and WSF, such that congruence between work and school coupled with high levels of PsyCap, would lead to increased academic outcomes.

Conversely, PsyCap may play a role in buffering against negative academic outcomes when students are in WSC situations. It has already been stated that WSC is negatively related to both school performance and satisfaction, but it is possible that students with high levels of

PsyCap offer themselves protection against these negative outcomes when in these conflicting situations. Considering the positive effects PsyCap has on academic outcomes, it is likely this construct could act as a buffering mechanism against stressful situations, such as incongruence between work and school roles. In other words, PsyCap could buffer against the negative effects associated with conflicting roles between work and school through the accumulation and maintenance of these important psychological resources. Thus, it is posited that individuals experiencing high WSC will have higher levels of academic success when also possessing high levels of PsyCap.

Hypothesis 3: PsyCap will moderate the relationship between WSF and WSC on study engagement, student performance, and school satisfaction, such that:

a) Individuals with high WSF and high PsyCap will have increased study engagement, student performance, and school satisfaction, compared to those with lower levels of PsyCap (see *Figure 1).*
b) Individuals with high WSC and high PsyCap will have increased study engagement, student performance, and school satisfaction, compared to those with lower levels of PsyCap (see *Figure 2).*

Method

Participants and Procedure

Participants were acquired through gathering a list of 1700 students currently enrolled in either MBA, M.S., M.A., or Graduate studies programs at a Midwestern university obtained through the Office of Strategy, Planning, and Effectiveness. An email was sent to all of the individuals, attempting to solicit their voluntary participation and consent in this study. The email provided a description of the research along with a link that directed them to an online

survey. Three $20 gift cards to various local establishments provided incentive for students to participate. Measures included the psychological capital questionnaire, work-school facilitation, work-school conflict, school satisfaction, attendance, study engagement, self-reported GPA, and demographic variables including gender, age, year in school, hours of time spent on work/schoolwork, and major area of study. These measures were distributed using the online survey platform Qualtrics. Students were informed that their confidentiality and anonymity will be protected, and that results will only be reported in the aggregate.

Two hundred and eleven employed graduate students completed the surveys, providing a decent (12.4%) completion percentage. Sixty-eight percent of participants were female, and ages ranged from 21 to 77 years old, with a mean of 32 years old (*SD* = 10.18). Forty-five percent of participants were employed full-time, forty-three percent were employed part-time, and seven percent were currently unemployed. Participants were enrolled in over 40 major areas of study, with education (7%) being the most common. White was the most common ethnicity (78%) reported among participants, followed by Asian/Pacific Islander (8%), Other (4%), Black/African American (3%), Hispanic or Latino (1%), Native American (.5%), and 4% chose not to record their ethnicity. Participants worked an average of 27 hours per week (*SD* = 17.41), and spent an average of 15 hours a week on school-related work (*SD* = 12.46). A power analysis was conducted to determine the number of participants recommended to obtain a 95% confidence interval. Results indicated the appropriate number from a population of 1700 would be 314 participants. This number was not reached, however a sample of 234 was adequate for a 90% confidence interval, which is very close to the 197 participants used in this study. The margin of error using 197 participants was 6.51%, adequate enough to perform the correlation and regression analysis used in this study.

Measures

Psychological capital questionnaire. The psychological capital questionnaire (PCQ) is a widely recognized instrument in the positive psychology domain. This instrument was originally developed for employees in the workplace and assesses individual's hope, efficacy, resilience, and optimism. There are six items that are associated with each sub-factor (hope, efficacy, resilience, and optimism), and combined they form the PCQ-24. The PCQ uses a 6-point Likert scale (from 1 = "Strongly disagree" to 6 = "Strongly agree").

This instrument has been supported as a reliable measure of individual's psychological capital (Luthans et al., 2007). Luthans et al., (2007) performed a meta-analysis on the reliability and validity of PsyCap, and found that in 28 of 29 studies examined all but one had internal consistency reliability above the .70 level. Ten of the studies in the meta-analysis assessed the internal consistency of the four sub-factors which makeup PsyCap. Self-efficacy ($\propto$ = .70-.92) and hope ($\propto$ = .70-.87) had consistent acceptable levels of reliability, but optimism ($\propto$ = .65-.92) and resilience ($\propto$ = .63-.83) had slightly less than acceptable levels. Luthans et al. (2007) proposes one reason for the lower estimate of reliability with optimism and resilience could be due to the reverse scored items located in these sub-factors. For instance, one of the studies in the meta-analysis dropped the reverse scored items in these sub-factors and found Cronbach's alpha to improve from .66 to .80 for resilience and .69 to .83 for optimism (Luthans et al., 2007). For the current study, it was determined that dropping these items was not feasible, because these reverse scored items could serve as an indicator of carelessness responding. Numerous participants inquired about these questions because they did not see the relevance to the study; this scrutiny and interest into the makeup of these questions can suggest these participants were carefully and honestly answering the survey questions (see Appendix B).

The original items were modified slightly to represent school-related questions instead of work-related questions. Luthans, Luthans, and Jensen (2012) performed the same modifications for their study on business students and found a more than acceptable Cronbach's alpha reliability of .90. The current study found acceptable levels of Cronbach's alpha for self-efficacy ($\propto$ = .84), hope ($\propto$ = .86), resilience ($\propto$ = .72), optimism ($\propto$ = .75), and overall PsyCap ($\propto$ = .90). PsyCap has also demonstrated discriminant validity in its relationship with core self-evaluation (CSE) (Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011). This study found significant positive correlations between PsyCap and CSE across three time points (r = .16, .25, .49). The small, yet meaningful correlations elude that these constructs are similar but distinct from one another, demonstrating discriminant validity. Although, further research is needed in areas such as positive orientation and well-being to determine further discriminant validity. Luthans, Luthans, and Jensen (2012) also showed validity in PsyCap predicting GPA, accounting for 7% of the variance in GPA scores among graduate students. Some sample items from each sub-scale include "There are lots of ways around any problem concerning my schoolwork" (hope); "I always look on the bright side of things regarding my schoolwork" (optimism); "I usually manage difficulties one way or another concerning my schoolwork" (resilience); and "I feel confident setting targets/goals for my schoolwork" (efficacy).

Work-school facilitation. Five items were used to assess participants level of WSF (see Appendix C). The measure was obtained from Butler (2007), who found a Cronbach's alpha reliability coefficient of .85, suggesting acceptable levels of internal consistency. This research paper found a similar level of Cronbach's alpha reliability coefficient for WSF ($\propto$ = .81). Butler (2007) has also shown WSF to be significantly related to GPA (r = .11, p < .05) and school satisfaction (r = .37, p < .05), thus demonstrating validity in the measure. The response scale

used for the items was (1 = "Never/very rarely" to 5 = "Always/often"). The questions were designed to elicit an individual's facilitation from work to school. Some sample items are "The things you do at work help you deal with personal and practical issues at school", and "Talking to someone at work makes you a better student."

Work-school conflict. Four items were used to assess individual's level of WSC (see Appendix C). The measure was developed by Markel and Frone (1998) to reflect a level of interference from work to school. Butler (2007) found a fairly high Cronbach's alpha estimate of .88, indicating this is a reliable form of measurement. Reliability estimates on WSC for the current study found very similar results ($\propto$ = .84), indicating internal consistency on the measurement of WSC. McNall and Michel (2011) demonstrate the relatedness of WSC to important academic outcomes such as attendance (r = -.24, p < .01) and school satisfaction (r = -.13, p < .05); finding significant negative relationships. The response scale for the four items was (1= "Strongly disagree" to 5 = "Strongly agree"). Sample items include "Because of my job, I go to school tired" and "My job demands and responsibilities interfere with my schoolwork."

School satisfaction. Butler (2007) developed a six item measure of school satisfaction, which was adopted and used for this study (see Appendix D). The items indicate satisfaction with being a good student, the educational experience, and with the university in general (Butler, 2007). Butler (2007) found a relatively high Cronbach's alpha reliability of .95 for the school satisfaction measure, indicating a more than acceptable level of reliability. Coinciding with Butler (2007), the current study found relatively strong Cronbach's alpha levels for school satisfaction ($\propto$ = .90), indicating strong internal consistency. The response scale for the items was (1 = "Strongly disagree" to 5 = "Strongly agree"). Some sample items include "I enjoy being a student on this campus" and "I am satisfied with my education at this university."

Study engagement. Study engagement was assessed using a nine item measure adopted from Schaufeli and Bakker (2006) (see Appendix F). These researchers adopted this form from the Utrecht Work Engagement Scale designed to measure employee engagement. Schaufeli and Bakker (2006) assessed the reliability of this new scale using 30 samples from 10 different countries, and found 27 out of 30 cases to have Cronbach's alpha higher than .70. This cross-national sample indicates this is a reliable measure in countries outside of the United States, thus giving this measure more merit. This research paper found much higher levels of Cronbach's alpha ($\propto$ = .89), indicating a reliable form of measurement. The response scale for the items was (0 = "Never" to 6 = "Always/everyday"). Sample items include "I am proud of the schoolwork I produce" and "I am immersed in my schoolwork."

Academic performance- self-reported GPA, attendance, and study engagement. Academic performance was assessed using self-reported GPA (see Appendix G), attendance (see Appendix E), and study engagement. Attendance was measured using four items aimed at assessing a college student's regular attendance. Cronbach's alpha reliability coefficients for attendance were generally acceptable ($\propto$ = .75), indicating internal consistency. The response scale ranges (from 1 = "Never" to 5 = "Very often/always"), and some sample items include "During any given week of school, I skipped several classes" and "I skipped a whole day of classes without a real excuse." Average number of hours devoted to school and work were also assessed as control variables in the study.

Results

Prior to analyzing the results of this study, the data had to be screened and cleaned to account for missing data points. Respondent cases were deleted if they failed to answer more than two of the questions on the PsyCap questionnaire, study engagement, school satisfaction,

attendance, work-school conflict, and work-school facilitation measures. Also, if a participant did not report their GPA, this participant's responses were deleted entirely. This decision was made because numerous participants failed to answer multiple questions on either attendance, work-school conflict, or work-school facilitation, possible indicating they did not work or attend class in-person. Considering the purpose of this research, participants should both attend class and work in order to be taken into account for this research study. After cleaning the data, 14 participant responses were deleted, resulting in a total of 197 participant responses used in the following analyses. The researchers made the decision to standardize (using z-scores) the results of each of the measures in order to compare the results of measures utilizing different scales. For example, the PCQ utilized a six-point Likert-type scale, whereas GPA was measured on a 4-point decimal scale. It is not possible to statistically compare and analyze these groups when they are measured on different scale formats, thus standardization is recommended so that each of the results are on the same numeric scale.

As can be seen from Table 1, participants level of overall PsyCap was significantly correlated in the correctly hypothesized direction with work-school conflict (r = -.23, p < .01), work-school facilitation (r = .29, p < .01), school satisfaction (r = .34, p < .01), study engagement (r = .60, p < .01), attendance (r = .16, p < .05), GPA (r = .16, p < .05), and the composite performance variable (r = .47, p < .01) consisting of GPA, study engagement, and attendance combined. These significant correlations indicate a moderate to strong relationship between PsyCap and each of the dependent variables.

Table 1 also provides correlations between PsyCap and the individual constructs that makeup PsyCap; including self efficacy (r = .82, p < .01), hope (r = .86, p < .01), resilience (r = .69, p < .01), and optimism (r = .77, p < .01). These significant positive correlations indicate a

robust relationship with the overall PsyCap construct. Further, each of the HERO constructs are moderately related to one another (see Table 1), indicating similar yet distinct constructs. This has important implications when considering PsyCap as a higher-order construct, because each of these facets represent a unique attribute of PsyCap, and contribute to the predictive nature of PsyCap as a whole. In other words, each of these facets measure something slightly different, however they are related at some level. Further regression analysis can yield whether or not PsyCap as a whole predicts academic outcomes to a greater degree than each of the facets by themselves, thus indicating a synergistic effect between the HERO constructs. This analysis is beyond the scope of this paper, but should be considered in future research through various factor analytic methodologies.

Hypothesis 1a states that WSF will be positively related to 1) study engagement, 2) school GPA, 3) school satisfaction, and 4) overall performance. Table 1 indicates WSF is significantly correlated with two of the dependent variables; study engagement ($r = .32$, $p < .05$), and overall performance ($r = .30$, $p < .05$). WSF was not found to be related to school satisfaction ($r = .14$, $p > .05$) and GPA ($r = .14$, $p > .05$). A hierarchical regression was then conducted using WSF as an independent variable predicting study engagement, and overall performance as dependent variables. The demographic variables of age, gender, and hours per week spent on classwork and work were entered into the equations first, acting as the control variables in the analysis and factor out any effect they may have on the dependent variables. The results indicate WSF accounts for 13% of the variability in study engagement above and beyond the four control variables, $F(1, 165) = 4.76$, $p < .001$, $R^2 = .13$. Also, WSF significantly predicts study engagement $\beta = .35$, $t(165) = 4.56$, $p < .001$. WSF also significantly predicted overall academic performance $\beta = .32$, $t(158) = 4.20$, $p < .001$, accounting for 14% of the variability in

overall performance levels $F(1, 165) = 5.08$, $p < .001$, $R^2 = .14$. Based on these results, WSF significantly predicts both study engagement and overall academic performance.

Hypothesis 1b states WSC will be negatively related to study engagement, GPA, school satisfaction, and overall performance. Correlation analysis indicates WSC to be significantly and negatively related to school satisfaction ($r = -.17$, $p < .05$), study engagement ($r = -.21$, $p < .01$), and overall academic performance ($r = -.18$, $p < .05$). However, WSC was not significantly related to GPA ($r = -.05$, $p > .05$). Based on these results a hierarchical regression was conducted using WSC as an independent variable and study engagement, school satisfaction, and overall academic performance as dependent variables. The demographic variables of age, gender, and number of hours spent on classwork and work will be entered into the equation first, so as to factor out any effect they may have on the dependent variables. Regression analysis indicated non-significant results for WSC predicting study engagement [$F(1, 165) = 2.04$, $p > .05$, $R^2 = .06$] and overall performance [$F(1, 165) = 2.19$, $p > .05$, $R^2 = .07$], however was found to be a significant predictor of school satisfaction $\beta = -.23$, $t(165) = -2.97$, $p < .01$, accounting for 9% or the variance in these scores [$F(1, 165) = 3.24$, $p < .01$, $R^2 = .09$]. It is prudent to note that this predictive relationship is negative, thus for every increase in WSC there is a decrease of -.23 in school satisfaction. In other words, as conflict between work and school increases, satisfaction with school decreases.

Hypothesis 2 states that PsyCap will be positively related to study engagement, student GPA, school satisfaction, and overall academic performance. Correlation analysis reveals PsyCap is significantly related to study engagement ($r = .60$, $p < .01$), GPA ($r = .16$, $p < .05$), school satisfaction ($r = .34$ $p < .01$), and overall academic performance ($r = .47$, $p < .01$). It is important to note that PsyCap was also significantly related to WSF ($r = .29$, $p < .01$) and WSC

(r = -.23, p < .01), indicating the potential for moderation with these variables. Considering the significant relationship with all of the dependent variables, a hierarchical regression was conducted using PsyCap to predict study engagement (β = .61, t(165) = 9.31, p < .001), school satisfaction (β = .36, t(165) = 4.82, p < .001), GPA (β = .10, t(165) = 1.22, p > .05), and overall performance (β = .45, t(165) = 6.07, p < .001). As can be seen from these results, PsyCap had the largest effects on study engagement [F(1, 165) = 18.15, p < .001, R^2 = .36] and overall academic performance [F(1, 165) = 9.11, p < .001, R^2 = .22], accounting for 36% and 22% (respectively) of the variance in these variables. PsyCap also accounted for 16% of the variance in school satisfaction [F(1, 165) = 6.25, p < .001, R^2 = .16], indicating PsyCap is a particularly good predictor of many important academic outcomes. GPA was the only dependent variable that PsyCap did not significantly predict, accounting for a meager 7% of the variance, however, there was range restriction present in GPA scores due to sampling post undergraduate students. As a result, I computed a correction for range restriction correlation coefficient using Thorndike's (1949) formula. The resulting correlation between GPA and PsyCap was a statistically significant .35, much greater than the original correlation of .16 found between GPA and PsyCap. In this case, if we square the corrected correlation we can estimate PsyCap will account for roughly 12% of the variance in GPA. Again, age, gender, and number of hours per week spent on work and classwork were entered into the equation first, acting as covariates, factoring out any influence they may have on the dependent variables.

Hypothesis 3a states that PsyCap will moderate the relationship between WSF and WSC on study engagement, student GPA, school satisfaction, and overall academic performance, such that individuals with high WSF and high PsyCap will have an increased study engagement, student GPA, school satisfaction, and overall academic performance, compared to those with

lower levels of PsyCap. In other words, we need to ascertain whether or not PsyCap interacts with WSF to influence these academic outcomes.

Hypothesis 1a was partially supported, therefore the moderation analysis was performed using study engagement, school satisfaction, and overall academic performance. These effects were tested using a moderated regression analysis in SPSS. The first analysis used study engagement as the dependent variable. PsyCap and WSF were centered so that each mean is equal to zero. Then, the two independent variables (PsyCap & WSF) were multiplied together to create an interaction variable. A regression was then run entering the relevant demographic variables in Step 1, WSF and PsyCap were then entered in Step 2, and then the interaction between WSF and PsyCap was entered into Step 3 in order to assess the significance of the interaction terms on study engagement. As can be extrapolated from Table 5, the resulting moderation analysis was found to be not significant ($\beta = -.06$, $t(193) = -1.00$, $p > .05$). Based on this model, no evidence exists to support the hypothesis that PsyCap moderates or influences the impact of WSF on study engagement. The next analysis uses the same methodology with school satisfaction as the dependent variable. Similar results were found using school satisfaction as the dependent variable ($\beta = -.02$, $t(193) = -.29$, $p > .05$). Finally a moderated regression analysis was conducted using overall academic performance as the outcome variable ($\beta = -.10$, $t(193) = -1.58$, $p > .05$), and was also found to be non-significant, however much closer to being significant than the previous two analysis. There were strong main effects present in this data, which could be a potential reason for the non-significant results in this moderation analysis. This may suggest that mediation is a more plausible explanation rather than moderation. The results of these analysis do not support hypothesis 3a.

Hypothesis 3b states that PsyCap will moderate the relationship between WSF and WSC on study engagement, student performance, and school satisfaction, such that individuals with high WSC and high PsyCap will have an increased study engagement, student performance, and school satisfaction, compared to those with lower levels of PsyCap. These effects were tested using the same methodology as hypothesis 3a, however WSC was used in place of WSF. Considering WSC was only found to be significantly predictive of study engagement and overall academic performance, these were the dependent variables of interest for this moderation analysis. Study engagement was entered as a dependent variable first, and results indicate PsyCap does not moderate the relationship between WSC and study engagement ($\beta = -.01$, $t(193) = -.18$, $p > .05$). Next, overall academic performance was used as the dependent variable, and revealed similar results $\beta = -.04$, $t(193) = -.54$, $p > .05$. In conclusion, hypothesis 3b was not supported; indicating PsyCap does not moderate the relationship between WSC and study engagement or overall academic performance. Considering the lack of a supported hypothesis, there is no reason to plot the points of the moderated regression analysis for hypothesis 3a or 3b.

Discussion

Positive organizational behavior has been at the forefront of emerging psychological theories that have been re-shaping the way managers and business professionals train and view their human resources (Luthans & Avolio, 2014). If POB is having such a large impact on the workplace, then should it not be utilized within the mass training program we call college as well? This research paper attempted to bring light to the positive impact that harnessing psychological resources can have in the academic setting, especially when combined with work skills that facilitate the use and retention of relevant academic knowledge and skills.

As predicted, and coinciding with Luthans et al. (2007) and Thompson, Lemmon & Walter (2015) PsyCap seems to play a large role in predicting academic performance, school satisfaction, and engagement. The aforementioned researchers used samples from the workplace, while the current paper used students enrolled in graduate courses at a public university; however, the results are convergent and illustrate the importance of PsyCap and its ability to predict important outcomes across multiple institutions. These results are important for current academic employees and researchers, because PsyCap can be developed in people overtime (Luthans, Avey & Patera, 2008), thus allowing for a secondary learning platform (curriculum) that focuses on the utilization and building of these psychological resources. If researchers can determine a way to build and capitalize on these resources in students, then it is possible we will graduate students that are more prepared for succeeding in the workplace. Specifically, we should build curriculums that focus on increasing optimism, resiliency, self-efficacy, and hope. It is likely the instructor would play a large role in facilitating the building of these important resources. Future studies should examine specific ways in which these resources can be increased, sustained, and capitalized on in the academic setting.

Work-school facilitation was another important variable in this study, and was found to be predictive of both study engagement and overall academic performance, coinciding with Butler's (2007) findings that WSF was related to school performance. These results have important implications in the university setting, because it shows that congruence between work-related duties and school-related duties can lead to increased performance in the academic setting. Applied to the university setting, professors can use these results to guide students toward internships, apprentices, etc. which facilitate the use of convergent skills, which should in turn increase their performance. It may also be possible that performing similar school and work-

related skills could increase student's retention and acquisition of PsyCap resources, as indicated by the moderate relationship found between WSF and PsyCap ($r = .29$, $p < .01$). Future research should aim to determine which specific resources found in PsyCap are impacted most significantly when congruence between work and school-related skills are present. For example, it may be that self-efficacy is most significantly impacted because students use the same skills in school and work, thus becoming more proficient in these skills, leading to an increased sense of confidence when performing these skills.

Work-school conflict was found to be negatively related to all of the outcome variables used in this study, however was only significantly predictive of school satisfaction. This result is important because as conflict between work and school-related skills increases, we see a decrease in school satisfaction. The correlational results of this study very closely resemble the results of Butler's (2007) study in that all of the outcome variables are negatively related to WSC. These students most likely spend a significant amount of time performing duties on their job that do not transfer to the school setting, thus requiring the use of different resources to complete their school and work related duties. The utilization of these different resources can cause the depletion of these resources to happen at a quicker rate, often leading to burnout or reduced motivation to complete their work. However, there was no significant negative effect on these student's performance, thus future research should examine which specific PsyCap resources are being impacted. It could be that hope and optimism is reduced because these students are depleting so many of their resources needed to complete all of their tasks that they are feeling overwhelmed and overworked.

It was somewhat surprising that PsyCap did not significantly predict GPA, however there is likely a plausible explanation for this finding. The variable of GPA was assessed using self-

reported data from graduate students. In order to be accepted into most graduate programs students must have at least a 2.5, and more likely a 3.0 GPA. Further, these students usually have to maintain at least a 3.0 GPA in order to continue their studies in the program. Thus, it is likely this study suffered from a significant amount of range restriction in the variable of GPA. For instance, Kuh et al. (2008) sampled 6,193 second-year students across 18 four-year colleges and found a mean GPA of 3.03 and a standard deviation of 0.64, Samantha Lindsay (2015) of prepscholar.com indicates the average college GPA is 3.10. The current study found an average GPA of 3.80 and a standard deviation of 0.28, which indicates a significantly higher GPA and lower standard deviation. This restriction of range is most likely the reason that PsyCap did not significantly predict GPA, because there was not enough variance to produce a strong linear relationship between PsyCap and GPA. Future studies should consider sampling from a more representative pool of the general population.

The main point of this study was to determine whether or not PsyCap could moderate the relationship between WSF and academic outcomes and WSC and academic outcomes, however the results of this study were not supportive of the hypotheses. It was thought that a high level of PsyCap could potentially reduce the negative effects that WSC has on important academic outcomes, and through the conservation of resources, lead to an increase in academic outcomes for students who experience WSF. There are numerous possibilities that could explain why the moderation analysis was found to be insignificant. It could be that WSC and WSF moderate the relationship between PsyCap and academic outcomes; such that increased PsyCap leads to positive academic outcomes when WSF is present. Conversely, when WSC is present we may see a zero-order relationship between PsyCap and positive academic outcomes. This hypothesis is plausible, however, if WSC suppresses the relationship between PsyCap and academic

outcomes, it may undermine the importance of resiliency which lies within PsyCap. Regardless, this offers a potentially valuable direction for future researchers to examine more closely.

It is also possible that the relationship between all of these variables is indicative of mediation rather than moderation. For example, the significant relationship between WSF and WSC with study engagement, and PsyCap being significantly related to study engagement, mediation may statistically exist. It is possible that the relationship between WSF and positive academic outcomes is strong because those students have a higher level of PsyCap, whereas students who experience WSC have lower levels of PsyCap. In this hypothesis, PsyCap explains why the relationship occurs (mediation), rather than specifying when (moderation) it will occur. There is a wide array of possibilities available to explain these relationships, and ample reason to do so given the important implications the results may have in the university setting.

This study yields many important considerations in further understanding PsyCap, WSF, WSC and their relationship with important academic outcomes. Students who are more hopeful, self-efficacious, resilient, and optimistic may have a greater propensity to overcome hurdles or hindering events that develop throughout their academic career, because they have a greater amount of resources to depend on when these negative events occur. These students are also more engaged in efficient study habits, which may serve to generate and/or conserve these resources and likely contributes to their greater academic success. It would seem plausible that studying could increase a student's hopefulness, make them more confident (self-efficacy), and increase the chances that they are optimistic about an upcoming exam. In turn, if these students do not perform well, it is likely their high amount of resiliency causes them to "bounce back" and study harder to obtain the grade they desire. Future research should be conducted to link each of the HERO resources to various study habits and outcomes. For example, does resilience

and self-efficacy increase when a student overcomes performing poorly on an exam? Or does hope and optimism substantially increase when a certain amount of time and effort is put into studying? Mental intelligence and personality may also provide lucrative attributes to study in relation to PsyCap. It is possible that differences in personality traits and mental intelligence may reflect varying levels of individual psychological resources. There are a plethora of linkages that could be studied to further understand PsyCap and assist with the development of these resources.

This study indicated that WSF and WSC had numerous important implications in regards to student's success and study habits. Students with high WSF had a greater amount of success and better study habits compared to their counterparts who scored high on WSC. This is likely because students who work in an area that is closely aligned with what they are studying in school benefit from repeated exposure to the same concepts and skills. This repeated exposure helps students understand and apply these skills in ways that may not be replicated in the classroom. Furthermore, students who work part-time at a non-relevant job often work long hours that may hinder their ability to study as much as is warranted to obtain a desired grade. Therefore, it should be incumbent upon universities and academic advisors to assist students in obtaining jobs that coincide with their areas of study. Most universities have internship programs, however they are often unpaid and short-term. This type of job is often not suitable for the student that relies on his or her job to pay the bills and live, which is why so many students work part-time jobs that have nothing in common with their area of study. This is why universities should focus on developing programs and/or organizational alliances that allow for the placement of students into paying jobs that allow students to utilize the skills and concepts they are learning in school. These alliances could be merit based and/or dependent upon

maintaining a certain level of GPA, thus providing the student with greater incentive to perform well in school. This research study clearly illustrates that conflict between work and school results in less study engagement, lower academic performance, and lower attendance rates, thus further effort should be made to alleviate the need for students to obtain these non-relevant jobs.

Limitations and Conclusions

There are numerous limitations present in this study that may have affected the outcomes. First, the chosen sample (graduate students) significantly reduced the variance in many of the variables. For example, the dependent variable of GPA had a mean of 3.80 and a standard deviation of 0.28, thus indicating 68% of the sampled students had a GPA of 3.52-4.00. This lack of variance present in GPA made it difficult to account for situations in which students did not perform well in school. For the case of WSC, this lack of variance made it difficult to determine a specific situation that reduces academic performance, because hardly any of the students were performing poorly. This limitation was overlooked when the researcher decided to use graduate students as the sample, and future research on PsyCap, WSC, WSF, and academic outcomes should strive for a more diverse sample size that more adequately represents a normal student population.

The generalizability of this study is also impacted by the researcher's decision to use graduate students as the sample population. Generalizability is reduced because the majority of students in the university setting are undergraduates and have more in common with the "average" student than a graduate student might have. Students have to perform at a relatively high level to gain admission into a graduate program, and thus represent a population that is above average in most cases. These commonalities found in graduate students is represented in the results of this study by viewing the lack of large standard deviations present in all of the

variables. Future research should involve a more representative and diverse sample of the student population in an average university setting including; undergraduates, graduates, and post graduate students.

A third limitation to this study revolves around the methodological design. First, self-report surveys were used to measure participants' levels of each variable and is prone to multiple sources of error. Common method variance (CMV) is a source of error in most self-report survey design research studies, and is most likely present in this study. CMV is concerned with variance that is attributed to the measurement method rather than the constructs themselves. This limitation could have been partially eliminated if the researcher would have performed a time-1 and time-2 analysis of participant responses. Also, CMV could have been reduced if the researcher gave the participants the option of performing the survey online or in-person via hardcopy. A time-1 and time-2 survey design reduces the error associated with surveying a person at one point in time, because there are numerous factors that may influence how that person responds on that day (i.e. mood, day, hunger, fatigue, etc.). Providing the respondent with the option of taking the survey online or in-person reduces error associated with a lack of computer proficiency. In other words, a person may not know how to work a computer well and thus their results do not indicate what they meant to indicate. Taking the survey in person also allows the participant to ask the researcher questions and clarifications where the survey may not make sense to them. Also, self-report surveys are subject to response biases in the form of social desirability and extreme responding, thus inflating participant scores and providing the researcher with unreliable data. There was an honesty check in the form of two impossible answers located in two of the surveys, however this created more confusion among participants and was deemed unusable.

A larger, more diverse and representative sample size is almost always desired to achieve greater statistical power and ultimately generalizability. However, it is almost impossible to acquire a perfect sample from the perfect population, thus the results of this study should be deemed reliable and valid, despite the potential for error.

This study performed in the university setting was aimed to further understand the relatively new variable derived from POB; Psychological Capital. Specifically, the researcher was interested in the moderating role PsyCap may play in the relationship between WSF, WSC, and positive academic outcomes. Although the final results of this study were not supportive of the hypothesis, several implications can be derived. First, PsyCap has a significant relationship with all of the academic variables in this study, and was significantly predictive of many of these variables, such as school satisfaction, study engagement, and overall academic performance. This finding is significant because it exemplifies the impact that PsyCap has on academic performance. In the time in which we currently live, universities and their students are seeking any avenues by which they can gain an edge over their competition. PsyCap may represent a synergistic group of resources that university students can acquire, build up, and capitalize on throughout their tenure in the university and on the job. The majority of the participants in this study scored highly on the PsyCap questionnaire, and all were in graduate school, thus further research should be performed to determine if higher levels of PsyCap may lead students to seek post-undergraduate degrees. Also, it would be prudent to study the ways in which these resources (HERO) can be built-up in students so that universities can utilize these tactics and increase students PsyCap. Future researchers interested in PsyCap, WSF, WSC, and academic outcomes should study the possible mediating mechanisms that PsyCap may have between the WSC and academic outcomes relationship. It is very plausible that PsyCap can buffer against the negative

consequences associated with work-school conflict, and help students overcome these conflicting roles between work and school. In all, PsyCap appears to be a very lucrative avenue of research in the realm of Positive Organizational Behavior, and should be studied in both the university and job setting so that companies and academics alike can learn more about and utilize these productive forms of resources.

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Appendix A: Tables and Figures

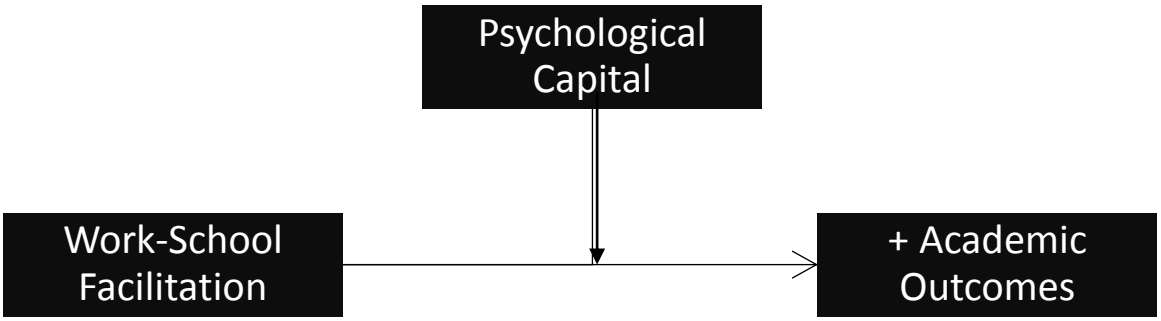

Figure 1. Hypothesis 3a: PsyCap Moderates Relationship Between Work-School Facilitation and Academic Outcomes

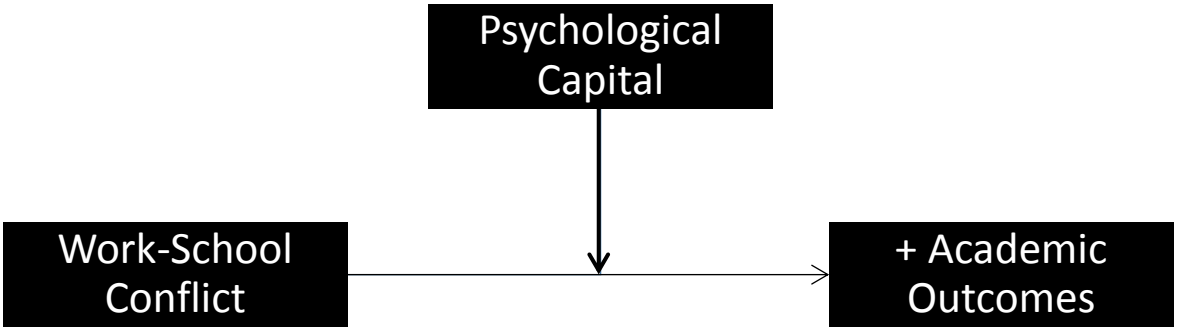

Figure 2: Hypothesis 3b: PsyCap moderates Relationship Between Work-School conflict and Academic Outcomes

Table 1: Correlations

Means, Standard Deviations, Correlations, and Reliability Coefficients for all Variables

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10	11	12
1. Self Efficacy	5.06 (0.72)	.84											
2. Hope	5.00 (0.72)	.68**	.86										
3. Resilience	4.86 (0.60)	.39**	.43**	.72									
4. Optimism	4.61 (0.67)	.47**	.55**	.43**	.75								
5. Total PsyCap	4.88 (0.54)	.82**	.86**	.69**	.77**	.90							
6. W-S Facilitation	3.95 (0.71)	.18*	.31**	.21**	.20**	.29**	.81						
7. W-S Conflict	2.96 (0.92)	-.19**	-.18*	-.07	-.28**	-.23**	-.09	.84					
8. School Sat.	3.79 (0.69)	.24**	.23**	.25**	.37**	.34**	.14	-.17*	.90				
9. Attendance	4.83 (0.34)	.05	.21**	.15*	.11	.16*	.12	-.09	.12	.75			
10. Study Engage.	4.86 (0.85)	.44**	.53**	.40**	.50**	.60**	.32**	-.21**	.38**	.23**	.89		
11. Performance	---	.24**	.44**	.37**	.44**	.47**	.30**	-.18*	.34**	.65**	.71**	.25	
12. GPA	3.80 (0.28)	-.02	.13	.17*	.24**	.16*	.14	-.05	.16*	.05	.18*	.62**	--

Notes. Cronbach's alpha reliability coefficients are on the diagonal.
*p < .05, **p < .01.

Table 2: Hypothesis 1a

Regression analysis for work-school facilitation predicting overall performance

Predictor	Regression		
	β	R^2	ΔR^2
Step 1		.02	
Age	.21*		
Gender	.05		
Hr/Week Working at Job	-.04		
Hr/Week Studying	-.00		
Step 2		.13**	**.**11**
Age	.19*		
Gender	.05		
Hr/Week Working at Job	-.10		
Hr/Week Studying	.05		
Work-school Facilitation	.32**		

Note: N=197; *p < .05, **p < .001

Table 3: Hypothesis 1b

Regression analysis for work-school conflict predicting student satisfaction

Predictor	β	Regression R^2	ΔR^2
Step 1		.04*	
Age	.19*		
Gender	.02		
Hr/Week Working at Job	.05		
Hr/Week Studying	.02		
Step 2		.09*	**.**05*
Age	.18*		
Gender	.02		
Hr/Week Working at Job	.13		
Hr/Week Studying	.05		
Work-school Conflict	-.23**		

Note: N=197; *p < .05, **p < .001

Table 4: Hypothesis 2

Regression analysis for psychological capital predicting overall performance

Predictor	β	Regression R^2	ΔR^2
Step 1		.04	
Age	.21*		
Gender	.05		
Hr/Week Working at Job	-.04		
Hr/Week Studying	-.00		
Step 2		.22**	**.**18**
Age	.10		
Gender	.09		
Hr/Week Working at Job	-.06		
Hr/Week Studying	.05		
Psychological Capital	.45**		

Note: N=197; *p < .05, **p < .001

Table 5: Hypothesis 2

Regression analysis for psychological capital predicting overall study engagement

Predictor	Regression		
	β	R^2	ΔR^2
Step 1		.02	
Age	.12		
Gender	-.01		
Hr/Week Working at Job	.00		
Hr/Week Studying	.00		
Step 2		.36**	**.**34**
Age	-.00		
Gender	.04		
Hr/Week Working at Job	-.04		
Hr/Week Studying	.08		
Psychological Capital	.61**		

Note: N=197; *p < .05, **p < .001

Table 6: Hypothesis 3a

Regression analysis for psychological capital moderating work-school facilitation and overall performance

Predictor	Regression		
	β	R^2	ΔR^2
Step 1		.04	
Age	.21**		
Gender	.05		
Hr/Week Working at Job	-.04		
Hr/Week Studying	-.00		
Step 2		.27**	**.**23**
Age	.19*		
Gender	.05		
Hr/Week Working at Job	-.10		
Hr/Week Studying	.05		
Psychological Capital	.39**		
Work-school facilitation	.23**		
Step 3		.28	.01
Work-school facilitation X PsyCap	-.11		

Note: N=197; *p < .05, **p < .001

Table 7: Hypothesis 3b

Regression analysis for psychological capital moderating work-school conflict and overall performance

Predictor	Regression		
	β	R^2	ΔR^2
Step 1		.05	
Age	.21**		
Gender	.05		
Hr/Week Working at Job	-.04		
Hr/Week Studying	-.00		
Step 2		.23**	**.**18**
Age	.19*		
Gender	.05		
Hr/Week Working at Job	-.10		
Hr/Week Studying	.05		
Psychological Capital	.44**		
Work-school conflict	-.04		
Step 3		.23	.00
Work-school conflict X PsyCap	-.04		

Note: N=197; *p < .05, **p < .001

Appendix B: Psychological Capital Questionnaire

Psychological Capital (PsyCap) Questionnaire (PCQ)
Self-Rater Version

Name: _____ Date: _____

Organization ID #: _____Person ID #: _____

Instructions: Below are statements that describe how you may think about yourself **right now**. Use the following scale to indicate your level of agreement or disagreement with each statement.

Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**
1	2	3	4	5	6

1.	I feel confident analyzing a long-term problem to find a solution.	1	2	3	4	5	6
2.	I feel confident in representing my work area in meetings with management.	1	2	3	4	5	6
3.	I feel confident contributing to discussions about the organization's strategy.	1	2	3	4	5	6
4.	I feel confident helping to set targets/goals in my work area.	1	2	3	4	5	6
5.	I feel confident contacting people outside the organization (e.g., suppliers, customers) to discuss problems.	1	2	3	4	5	6
6.	I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
7.	If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
8.	At the present time, I am energetically pursuing my work goals.	1	2	3	4	5	6
9.	There are lots of ways around any problem.	1	2	3	4	5	6
10.	Right now I see myself as being pretty successful at work.	1	2	3	4	5	6
11.	I can think of many ways to reach my current work goals.	1	2	3	4	5	6
12.	At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
13.	When I have a setback at work, I have trouble recovering from it, moving on.	1	2	3	4	5	6
14.	I usually manage difficulties one way or another at work.	1	2	3	4	5	6
15.	I can be "on my own," so to speak, at work if I have to.	1	2	3	4	5	6
16.	I usually take stressful things at work in stride.	1	2	3	4	5	6
17.	I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6

Psychological Capital (PsyCap) Questionnaire (PCQ)
Self-Rater Version

18.	I feel I can handle many things at a time at this job.	1	2	3	4	5	6
19.	When things are uncertain for me at work, I usually expect the best.	1	2	3	4	5	6
20.	If something can go wrong for me work-wise, it will.	1	2	3	4	5	6
21.	I always look on the bright side of things regarding my job.	1	2	3	4	5	6
22.	I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6
23.	In this job, things never work out the way I want them to.	1	2	3	4	5	6
24.	I approach this job as if "every cloud has a silver lining."	1	2	3	4	5	6

Note: Received from Mind Garden Inc. 1/21/2016. Revised from Luthans, 2011.

Appendix C: Work-School Facilitation and Conflict Questionnaire

Work–School Facilitation

Please indicate your agreement with each of these statements, with a 1 indicating strong disagreement with the statement, and a 5-indicating strong agreement with the statement. If the statement is not applicable to you, please put a 3 for neither agree nor disagree.

Scale: 1-Strongly disagree, 2-disagree, 3-neither disagree nor agree, 4-agree, 5-strongly agree

1. The things you do at work help you deal with personal and practical issues at school.
2. The things you do at work make you a more interesting person at school.
3. The skills you use on your job are useful for things you have to do at school.
4. Having a good day at work makes you a better student.
5. Talking to someone at work helps you deal with problems at school.
6. *Working helps you build relationships with your classmates (pets?)* (bogus)

Work–School Conflict

Please indicate how often each of these statements applies to you, with a 1-indicating this statement never occurs or is not applicable, and a 5-indicating this happens very often or always.

Scale: 1-Never, 2-Very rarely (once or twice a month), 3-Sometimes (once or twice a week), 4-Often (three to four times a week), 5-Very often/always (five or more times a week)

1. Because of my job, I go to school tired.
2. My job demands and responsibilities interfere with my schoolwork.

a. I spend less time studying and doing homework because of my job.
b. My job takes up time that I'd rather spend at school or on schoolwork.
c. My job requires homework** (bogus)

Note: Adopted from Butler, 2007.

Appendix D: School Satisfaction Questionnaire

School Satisfaction

Scale: 1-Strongly disagree, 2-disagree, 3-neither disagree nor agree, 4-agree, 5-strongly agree

1. I enjoy being a student on this campus.
2. This university meets my expectations.
3. I feel comfortable at this university.
4. I am satisfied with my education at this university.
5. I am pleased with the services I receive at this university.
6. Overall, I am satisfied with my experience at this university.

Note: Adopted from Butler, 2007.

Appendix E: Attendance Questionnaire

Attendance

Scale: 1-Never, 2-Very rarely, 3-Sometimes, 4-Often, 5-Very often/always

1. During any given week of school, I skipped several classes. (r)
2. During any given week of school, I attended all my classes.
3. I skipped a whole day of classes without a real excuse. (r)
4. During any given week of school, I skipped all of the class sessions for a particular course. (r)

Note: Adopted from Butler, 2007.

Appendix F: Study Engagement Questionnaire

Study Engagement

(adopted from Schaufeli & Bakker (2003) The Utrecht Work Engagement Scale)

The following 9 statements are about how you feel at school. Please read each statement carefully and decide if you feel this way about school or your schoolwork. If you have never had this feeling, write the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost Never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every Day

1. _____ At school, I feel bursting with energy
2. _____ While at school, I feel strong and vigorous
3. _____ I am enthusiastic about school
4. _____ School inspires me
5. _____ When I get up in the morning, I feel like going to class/school
6. _____ I feel happy when I am working intensely for school
7. _____ I am proud of the schoolwork I produce
8. _____ I am immersed in my schoolwork
9. _____ I get carried away when I'm working on school

Note: Adopted from Schaufeli and Bakker (2006).

Appendix G: Demographic Survey

Demographics

Thank you for completing this survey! Please take a few moments to help us get to know you better. Remember, your answers to these questions will remain confidential, and you may choose not to answer any number of these questions. We appreciate your participation in this survey!
What is your age? _____
What is your gender?

1- Male
2- Female

Please indicate your current employment status:

1- Employed full-time
2- Employed part-time
3- Currently unemployed
4- Military
5- Retired

How do you describe yourself? (please check the one option that best describes you)

1- White
2- Hispanic or Latino
3- Black or African American
4- Native American
5- Asian/Pacific Islander
6- Other

Please indicate what year you are in school:

1- Freshman
2- Sophomore
3- Junior
4- Senior
5- Graduate School
6- Post Doctorate
7- Other

Please indicate your current GPA as of the previous semester (example: 3.20): _____

Appendix H: IRB Approval

ST. CLOUD STATE UNIVERSITY
EDUCATION FOR LIFE.

Institutional Review Board (IRB)
720 4th Avenue South MC 204K, St. Cloud, MN 56301-4498

Name: Lucas Koperski
Address 1027 5th Ave. South
St. Cloud, MN 56301 USA
Email: kolu0901@stcloudstate.edu

IRB PROTOCOL DETERMINATION: Exempt Review

Project Title: Psychological Capital and Study Engagement: The Mediational Role of Work-School Facilitation and Work-School Conflict

Advisor Daren Protolipac

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

-Exempt review only requires the submission of a Continuring Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-3290 or email ri@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

Institutional Review Board:
Linda Donnay, MBA
IRB Administrator
Director, Research Integrity

IRB Institutional Official:
Dr. Marilyn Hart
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1557 - 1941	Type: Exempt Review	Today's Date: 3/1/2018
1st Year Approval Date: 3/1/2018	2nd Year Approval Date:	3rd Year Approval Date:
1st Year Expiration Date: 2/28/2019	2nd Year Expiration Date:	3rd Year Expiration Date:

Applied Consent

Title: Psychological Capital and Study Engagement: The Mediational Role of Work-School Facilitation and Work-School Conflict
Primary Investigator: Lucas Koperski, Graduate Student, St Cloud State University
Primary Advisor: Daren Protolipac, Ph.D., Professor, St Cloud State University
Telephone: 612-805-1860

Introduction
You are invited to participate in a study being conducted in order to evaluate the effects of Psychological Capital on student study engagement and performance.

Psychological capital (PsyCap) consists of four major components: hope, self-efficacy, resiliency and optimism (HERO). Together, these components have been shown to be related to outcomes such as job satisfaction, job performance, engagement, and well-being. The current study is interested in the relationship between the PsyCap components and school-related outcomes such as study engagement and school performance. This study is also interested in further understanding the relationship between PsyCap and work-school facilitation, and PsyCap and work-school conflict. In other words, the researchers believe that students who work in a job similar to their program of study will have more study engagement and higher school performance. Also, the researchers believe that students who work in a job that is not similar to their program of study will have less study engagement and lower school performance. The main goal of this study is to determine what factors might lead to high levels of study engagement and ultimately school performance. The information we obtain from you could be very helpful to us in further understanding these relationships.

Purpose
One purpose of the present study is to identify the relationship between psychological capital and student study engagement/school performance. Also, this study investigates the relationship between psychological capital and work-school facilitation, and psychological capital and work-school conflict. Finally, this study seeks to understand the extent to which work-school facilitation and work-school conflict mediate the relationship between psychological capital and study engagement.

Study Procedures
If you consent to participate in this study, you will complete two separate waves of questionnaires that address perceptions of psychological capital, work-school facilitation, work-school conflict, study engagement, school performance and demographics. Each survey should take approximately 15-20 minutes to complete, totaling to approximately 30-40 minutes. You will be asked to provide your email address upon completion of the first survey, as this will serve as our way of contacting you for the second survey approximately one month later. There will be a drawing following the completion of the second survey, where three randomly selected participants will receive one $20 gift card to either: Best Buy, Caribou Coffee, or Target. Email addresses will be discarded upon distributing the second survey, and all information will remain confidential.

Risks and Discomforts
The researcher does not see any reasonably foreseeable risks or discomforts experienced by participants as a result of participation in this study.

Benefits
At an individual level benefits may include understanding how PsyCap, work, and school-related factors interact and lead to study engagement and school performance. Also, individual level benefits may include understanding how work facilitates or conflicts with school. Benefits at an institutional level would include the ability to identify factors that lead to student success and engagement. Increasingly beneficial is the notion that these factors are state-like, and thus malleable, indicating they can be developed and cultivated to enhance the probability for student success. Results could also serve as a guide for how to successfully develop internship and/or practicum experiences for students, paying significant attention to the allignment of work and school KSAOs and tasks.

Confidentiality
All data collected in this study will be confidential. There will not be any personally identifiable data collected in this study. All data will be kept on a password protected secure server that only the researchers have access to. Any identifiable information will be removed from the data in order to protect the confidentiality of the information provided. Emails will be collected upon completing the first survey in order for us to send the second survey 1-month later. These emails will be discarded upon distributing the second survey.

Results
Any participant interested in viewing the results of this study can contact Daren Protolipac, Ph.D. at 320-308-5750 or dsprotolipac@stcloudstate.edu or Lucas Koperski at kolu0901@stcloudstate.edu or 612-805-1860.

Voluntary Participation/Withdrawal
Participation is voluntary. Your decision whether or not to participate will not jeopardize your future relations with your organization, St. Cloud State University or the researchers. If you agree to participate, you are free to stop at any time.

If you have any questions or concerns about the nature of this study or about participant rights, feel free to contact Daren Protolipac, Ph.D. at 320-308-5750 or dsprotolipac@stcloudstate.edu or Lucas Koperski at kolu0901@stcloudstate.edu or 612-805-1860. If you have any questions regarding your rights as a research participant, please contact St. Cloud State Universities Institutional Review Board (IRB) at 320-308-3290 or ri@stcloudstate.edu.

Acknowledgement of informed consent for psychological capital, work-school facilitation, work-school conflict, study engagement, and school performance study.

I have read all of the information on this consent form and received satisfactory answers to my questions. I willingly give my consent to participate in this study, and give the researchers permission to use my email address for the follow-up survey one month later.

By clicking the link below I have decided that I will participate in the project described above. I understand that I can discontinue participation at any time. My consent also indicates that I am at least 18 years of age.