THE EFFECTS OF INDIVIDUAL INSTITUTIONAL LEGITIMACY JUDGEMENTS AND EMPLOYEE PSYCHOLOGICAL WELLBEING ON THE ORGANIZATIONAL OUTCOMES SICKNESS ABSENCE AND PRESENTEEISM

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"THE EFFECTS OF INDIVIDUAL INSTITUTIONAL LEGITIMACY JUDGEMENTS AND EMPLOYEE PSYCHOLOGICAL WELLBEING ON THE ORGANIZATIONAL OUTCOMES SICKNESS ABSENCE AND PRESENTEEISM"

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ABSTRACT

The processes of institutionalization and legitimization have predominantly been studied at the socio-political macro level. At the micro level, individual institutional legitimacy judgements (IILJ) have been theorized to study employee's perceptions and judgements of institutional changes and to have important psychosocial consequences for both individuals and organizations (Bitektine, 2011; Tost, 2011). The purpose of this study is to learn the relationships and effects among the concepts of individual institutional legitimacy judgements, employee psychological wellbeing (PWB), and the organizational outcomes sickness absence and presenteeism. The context of the study is a Post-Secondary Educational Institution (PSEI) in BC, Canada. A quantitative correlational design was conducted and data analysis was completed using statistical exploratory factor analysis (EFA), multiple regression, and Spearman's Rho coefficient analysis. The IILJ scale (IILJS) was used to study the impact of individual institutional legitimacy judgements on the organizational outcomes sickness absence (SA) and presenteeism. PWB, as an important dimension of wellbeing and theorized to be a predictor of organizational outcomes (Page & Vella-Brodrick, 2009), was introduced to study its effect on the outcomes SA and presenteeism. Multiple regression was conducted on two models. One model studied the relationship between the two predictor variables- IILJs and employee PWB- and the two outcome variables. A second model studied the moderating effect of employee PWB on the relationship between IILJs and employee SA and presenteeism. The regression results showed a significant negative relationship with presenteeism. The interaction effect of IILJ and PWB did not contribute much to the variance in the presenteeism value from model 1. The results for SA were not significant. No instrument currently exists to study IILJ and one contribution of this study is to present a scale with established content validity and internal construct validity to measure this concept. The results of the EFA on the IILJS showed high correlations to the subscale factors: relational, instrumental, and moral. Using oblimin rotation the internal construct validity for the IILJS was parsimonious. The reliability statistics for the IILJS were good (Field, 2009). The IILJS shows promise as a valid and reliable instrument to measure the effects of organizational and institutional changes at the micro level. The results of this study can be used to establish external construct validity of the IILJS and learn how employees' institutional legitimacy judgements relate to other organizational outcomes within different or similar contexts.

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1. INTRODUCTION

This study examines individual institutional legitimacy judgements, employee psychological wellbeing (PWB), and the organizational outcomes, sickness absence and presenteeism, in relation to a changing post-secondary education institution (PSEI) in British Columbia (BC) Canada. There have been significant PSEI changes in BC in the last 20 years and it is plausible that employees' institutional legitimacy judgements, their PWB, and organizational outcomes have been impacted by these changes. In response to the economic downturn of the early 2000s, reductions in government funding have resulted in efforts of PSEIs to become more competitive and efficient. Contrary to any organization's intent, such changes can have a profound negative effect on employee and organizational functioning. For example, employees in other sectors facing similar organizational changes have exhibited decreased levels of organizational commitment, trust in management, and job involvement (Cooper-Schneider, 1989), as well as decreased performance (Corum, 1996).

Within the worldwide PSEI sector, employees are experiencing increased workload and accountability and a reduction in resources to do their work (Gillespie, Walsh, Winefield, Dua, & Stough, 2001; Kinman & Jones, 2003; Kinman & Jones 2008; Tytherleigh, Webb, Cooper, & Ricketts, 2005). It is reasonable to assume employees evaluate their workplaces when faced with such changes particularly when their health, relationships, and productivity may be impacted. At the organizational level, reduced employee work attendance and effectiveness can threaten an organization's ability to thrive and sustain itself amidst a climate of high levels of competition and scarce resources (Jones & Young, 2004). These issues and the relationships they have to one another are difficult to understand because their roots are political and systemic in nature which means a broad environmental lens is required (Lawrence, Leca, & Zilber, 2013). The concept of

institutions provides a conceptual structure to make these issues more visible, understandable, and manageable. Institutions are “stable, valued, recurring patterns of behavior” (Huntington 1965, p. 394). As skeletal structures or mechanisms of social order they govern the behaviour of individuals within a particular community and provide an illusion of collective rationality (DiMaggio & Powell, 1983). Social purpose identifies institutions which, in turn, transcend individuals and intentions by mediating the rules that govern living behaviour (Stanford Encyclopedia of Philosophy).

It is a general assumption that PSEIs are important institutions within our society. According to Gumport (2000, p. 74) public post-secondary institutions are based on a model devoted to “the development of individual learning and human capital, the socialization and cultivation of citizens and political loyalties and the preservation of knowledge and the fostering of other legitimate pursuits for the nation-state.” If PSEIs are intrinsically valued, then we are interested in how to make them stable and robust in response to external events (Coaldrake, Stedmann, & Little, 2003). If PSEIs are instrumentally valued, the interest is whether their alleged benefits are real (Carnegie & Tuck, 2010). In this case an institution would deliver what they say they will and the conditions under which those benefits are produced are justifiable and warranted. Therefore studying how best to institute a system that is intrinsically and instrumentally beneficial to institutional stakeholders poises this study as important.

The aim of this chapter is to provide a problem statement, purpose, and overview of this research project. The research question, which guides the methodology of this study, and the definition of key terms are presented here as well.

1.1. Purpose of the study

The purpose of this study is to learn the relationships and effects among the concepts of individual institutional legitimacy judgements, employee PWB, and the organizational outcomes of sickness absence[1] and presenteeism. Specifically, the study focuses on two primary objectives:

1. To determine the independent effects individual institutional legitimacy judgements and employee PWB have on the organizational outcomes employee sickness absence and presenteeism.
2. To determine whether employee PWB has a moderating effect on the relationship between individual institutional legitimacy judgements and the organizational outcomes sickness absence and presenteeism.

1.2. Context of the study

A university in British Columbia (BC), *British Columbia University (BCU)*, was the context for the study. The name has been changed for reasons of anonymity and confidentiality. BCU was originally founded in 1969 as a Community College (BC College or BCC). At this time BCC was able to offer degrees through one of three provincial universities by credit transfer. Following a 1988 government initiative designed to increase access to degree programs in British Columbia, BCC and four other community colleges in BC were granted authority to offer baccalaureate degrees. By 1990 BCC had three regional campuses and, in 1995, the province of BC enacted legislation changing the institution's name to BC University-College (BCUC). This officially

[1] Sickness absence rather than the term absenteeism was chosen for this study since it is an appropriate baseline to infer presenteeism (Johns, 2010). The use of the term absenteeism may be problematic because it extends beyond sickness and is related to anything that makes a worker absent from their workstation (Munro, 2007). Based on this it is quite difficult to discern whether the reasons for work absence are valid, i.e., warranted, and this may contribute to under-reporting (Johns, 2010). Research participants are more likely to report an absence they view as being for a legitimate reason, i.e., sickness (Johns, 2010) and self-reports of sickness absence may be more reliable. Absenteeism is more a function of the worker's motivation to attend (Johns, 2010), presents a habitual pattern of absence from a duty or obligation, and is an indicator of poor individual performance and a social adjustment problem (Johns, 2008).

allowed BCUC to begin granting academic degrees and college diplomas. On September 1, 2008, BCUC was changed to a university under an amendment of the *University Act* and officially became BC University (BCU).

BCU's changes have occurred in a parallel manner to widespread changes in the PSEIs in BC (Marshall, 2008; Usher & Dunn, 2009). BC has been faced with many PSEI field changes that have led to the review, redesign, re-evaluation, and renewal of structures and practices (Marshall, 2008). In the 1990s the adoption of neo-liberal[2] assumptions concerning the role of the government (Carroll & Shaw, 2001) and federal and provincial deficits led to considerable budget cuts in education (Fisher, Rubenson, Jones, & Shanahan, 2009). Since this time, Government sourced funding has shown gradual reduction from 70% to 40% in British Columbia's PSEIs (Fisher, Rubenson, Jones, & Shanahan, 2009; Usher & Dunn, 2009). Given this entropic pressure and the resulting drain on available resources, both material and human, the traditional and familiar post-secondary model may be described as broken (Usher & Dunn, 2009). Dissipation and many of the longstanding, accepted, and taken for granted practices and procedures of PSEIs are being called into question because they are creating tensions with increased accountability measures and competition for resources (Douglass, 2010).

In the past seven years since becoming a university, BCU has undergone extensive change with the aim of enabling it to better compete provincially, nationally, and internationally. After becoming a new university and under new administrative leadership, BCU began a strategic planning dialogue in earnest. This highlighted the need to align the institution's structures and activities with its overall strategy and direction. As with many PSEIs, declining revenues, an aging infrastructure,

[2] Neoliberalism is a label for economic liberalism, which advocates support for great economic liberalization, privatization, free trade, open markets, deregulation, and reductions in government spending in order to enhance the role of the private sector in the economy (Duménil & Lévy, 2004; Jones & ten Bos, 2007; Palley, 2005). To be "neoliberal" means that a modern economic policy with State intervention is required (Duménil & Lévy, 2004).

the atrophy of some programs and the thriving of others, and a series of other changes and challenges related to reporting, governance, management decision-making, and resource allocation processes, BCU can be said to be experiencing the impacts of the PSEI changes in BC (Douglass, 2010; Fisher et al., 2009; Marshall, 2008). Some might say it is undergoing the process of deinstitutionalization, which Oliver (1992) identifies as the erosion or discontinuity of an institutionalized organizational activity or practice. Further, Oliver (1992) theorizes that under a variety of conditions (i.e., changing financial dependency relations, deregulation[3], new leader(s), increased competition for resources, and increased technical specificity and performance measurement) organizational behaviours will be highly susceptible to dissipation, rejection or replacement. In response to the challenges facing BCU, large-scale change has been instigated which has resulted in fast growth in administrative roles, different institutional structures, role/job function expansion, implemented performance expectations, university wide assessments, the involvement of middle managers and Deans in recruitment and retention oversight, accountability, budgetary, and quality assurance functions (Boyko & Jones, 2009), and an increasingly modular and entrepreneurial teaching and learning curriculum and infrastructure (Anonymously Sourced from: BCU Accountability Plan and Report 2010/11-2012/13; BCU Institutional Accountability Plan and Report, 2013/14 Reporting Cycle; BCU Chairs Roles and Responsibilities, Nov. 2013).

From a theoretical perspective, one might expect changes of the scale that have occurred at BCU to impact, in a substantial way, upon its employees. A review of the PSEI change literature indicates that the changes facing BCU are shared by other PSEIs. From a global perspective PSEI employees in countries such as the United Kingdom (Tytherleigh et al., 2005), New Zealand

[3] Deregulation is the reduction of government's role in controlling markets. It presumably leads to freer markets and a more efficient marketplace. The process of removing constraints like government imposed economic regulation is correlated with the need for more corporate or business like structures and approaches. Critics of deregulation often cite the need of regulation to prevent financial instability, reduce competition, guarantee wide access, protect consumers, level the playing field, and maintain quality standards (Cali, Ellis, & te Velde, 2008)

(Gillespie et al., 2001; Houston, Meyer, & Paewai, 2006) and Australia (Winter, Taylor, & Sarros, 2000; Winter & Sarros, 2002) are witnessing considerable change with respect to many aspects of the PSEI environment and are responding to this change in a variety of ways. The literature presents evidence to suggest that the work structure and practices of academic faculty and staff are being compromised and this has had implications. For example, more managerial approaches (i.e., questioning the autonomy and academic freedom of faculty, measurement and appraisal of employee capabilities) are creating less collegial and participative forms of decision-making which have negatively impacted employee job satisfaction (Lacy & Sheehan, 1997; Tytherleigh et al., 2005). The literature also reveals that an increasing focus is being placed on the pursuit of higher levels of performance and productivity on all employees working in PSEIs (Smeenk, Teelken, Eisinga, & Doorewaard, 2009; Tytherleigh et al., 2005). In general the consequences of the institutional changes taking place include: greater work intensification, increased bureaucratization, greater accountability of academics, and a decline in the level of both academic freedom and trust between institutions and their employees (Tytherleigh et al., 2005).

Despite these known changes, many aspects of the PSEI changes in B.C. (and in Canada) and the impact they have had on employees require greater theorization and understanding. PSEIs in Canada, as we know them today, are facing the challenges of marketization and capitalization while attempting to maintain the societal values of equity, access and mobility (Marshall, 2008). Among the under-researched aspects of PSEI change in BC is the extent to which employees are experiencing widespread institutional change; the type of institutional conditions that are influencing the shape and character of the working lives of employees; the legitimacy judgements of individual employees about the institutional changes; what impact these judgements have on organizational outcomes like sickness absence and presenteeism, and; the role employee PWB plays in these important organizational outcomes. While the literature does provide us with

some insight into how and to what extent the institutional issues highlighted are impacting upon PSEI employees and organizations, what is absent is a much more systematic treatment of this complex subject and a closer analysis of how the changes at the institutional level may be related to employee institutional legitimacy judgements, their PWB, and organizational outcomes.

Canadian Governments have implemented PSEI changes largely to create more accountability in the public purse and to foster particular educational values, namely, increased equity, access, and mobility (Usher & Dunn, 2009). Within this context of change, the proposed study will critically examine the impact this has had on employee and organizational functioning. Specifically, it will seek to learn if BCU employees and their workplace are flourishing, (i.e., outcomes are positive), languishing (i.e., outcomes are negative) or remaining neutral (i.e., outcomes are neither positive nor negative).

1.3. Problem statement

Oliver (1992) and Tost (2011) both claim that legitimacy judgement questions are triggered by institutional change at the macro level and thus, are often an antecedent to deinstitutionalization. The fact that institutions are "inhabited" with people (Hallett & Ventresca, 2006) who make legitimacy judgements about the very institutions they work in makes it possible to conceptualize legitimacy questions being triggered at the micro level. From this perspective, a main problem and one sub problem are identified that will serve as a point of departure for this study. These are briefly outlined here and will be expanded upon further in Chapter 2, the literature review.

1.3.1. Main problem

Individual institutional legitimacy judgements have the potential to inform managers about how employees are reacting to the changes occurring in their institution. The main problem is that it is not

known what relationship, if any, exists between individual institutional legitimacy judgements and organizational outcomes like sickness absence, i.e. missing work when ill, and presenteeism, i.e., coming to work when sick, which are known to affect organizational functioning (Johns, 2010). Intuitively one would think that individual employee legitimacy judgements would have a significant impact on behavioural organizational outcomes. However the individual and contextual nature of both of these concepts makes this a difficult problem to study. For example, a person's negative or positive evaluation of an organization could plausibly influence how they behave towards that organization or those who manage it, however, much depends on how each individual resolves these tensions and experiences. A further complication is that although individual institutional legitimacy judgements have been theorized to be connected to the macro institutional state, to date no instrument has been designed to examine this concept empirically. In addition to employee's behavioural reactions to a perceived loss in legitimacy, it is likely that employees experience a subjective reaction too. PWB has been theorized to be a subjective intraindividual concept relevant to work functioning and organizational outcomes (Page & Vella-Brodrick, 2009; Ryan, Huta & Deci, 2008). Although it shows promise as a strategy to improve organizational outcomes, the empirical effects of employee PWB on sickness absence and presenteeism have not been studied. The study of the independent effects of individual institutional legitimacy judgements and employee's PWB is a potential means to learn how individuals subjectively and behaviourally react to a perceived loss of institutional legitimacy.

1.3.2. Sub Problem

If the effects of individual institutional legitimacy judgements and PWB as predictors of organizational outcomes are significant (or not) it is important to know if the interaction effects of these two predictors change the strength or direction of the influence in relation to the organizational outcomes sickness absence and presenteeism. The significance of the combined effects may provide

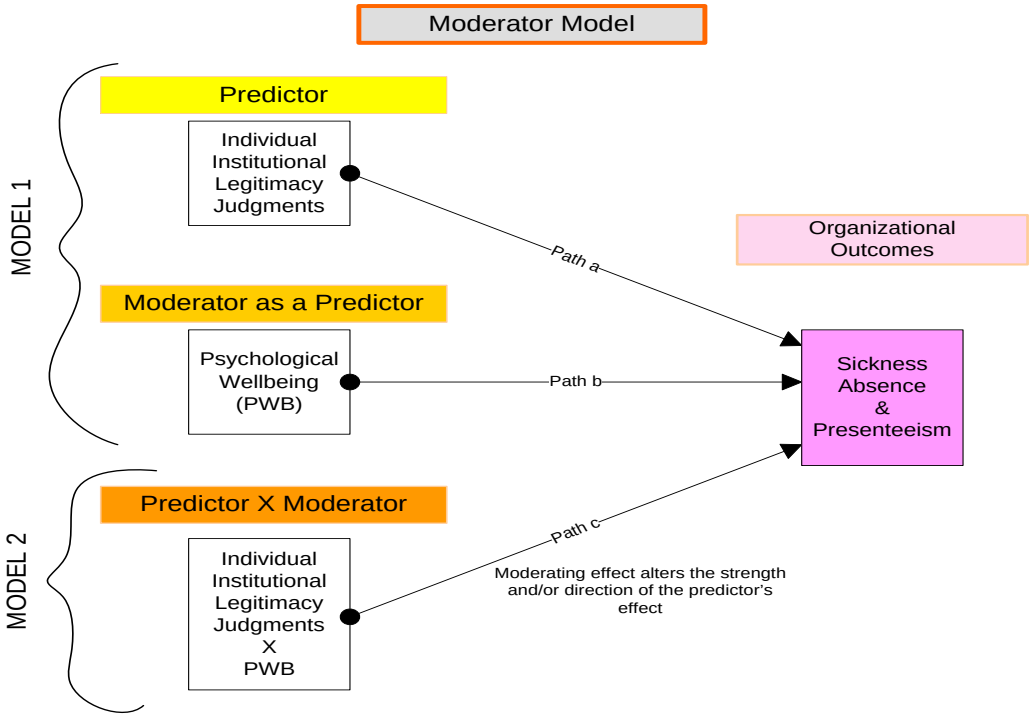
a basis for deciding how to best approach change management efforts within changing institutions. The sub problem is that the combined effect of institutional legitimacy judgements and employee PWB on organizational outcomes is not yet known. If the interaction of PWB as a moderator is significant, i.e., it influences the strength and/or direction of the impact of legitimacy judgements on sickness absence and presenteeism, then the role of the two predictor variables antecedent to the organizational outcomes can be discerned. For example, it becomes possible to identify the changes in effect of the individual institutional legitimacy judgements (predictor variable) on the organizational outcomes (outcome variables) as PWB changes. This would be an important discovery because employee's PWB at work is something that managers can strategize to improve. Since the process of de-legitimatization is theorized to accelerate the process of organizational entropy and de-institutionalization (Oliver, 1992) at the macro level, it is theoretically congruent, at the micro level, to think that improving employee functioning would have positive implications for organizational functioning. Whether the effects can be empirically supported remains to be studied.

Based on the main and sub problem the following research question will be used to guide and frame this study:

What is the relational effect between individual employee's institutional legitimacy judgements and the organizational outcomes sickness absence and presenteeism, and does it change with the level of employee's psychological wellbeing?

The research question is represented pictorially in Figure 1 below. One set of models is presented to study the relationship between the two predictor variables, individual institutional legitimacy judgements and employee PWB, and the outcome variables employee sickness absence and presenteeism. A second model is presented to measure the moderating effect of employee PWB on the relationship between institutional legitimacy judgements and the organizational outcomes sickness absence and presenteeism.

Figure 1: Research Model



1.4. Significance of the study

It is the aforementioned unknowns in institutional and organizational theory that poise this study to potentially offer advances in theoretical and empirical knowledge. If relational links and effects are established among individual institutional legitimacy judgements, employee PWB, and the organizational outcomes, presenteeism and sickness absence, then it is possible to highlight individual institutional legitimacy judgements and PWB as important indicators for organizational and institutional functioning and survival. Few studies have examined the transactional nature of institutions, organizations, and employees (Lawrence, Suddaby & Leca, 2009; Lawrence et al., 2013). As a result, questions about how they impact one another remain ill-defined and undiagnosed while solutions to concerns continue to be non-specific (Dewe & O'Driscoll, 2002).

The extent to which PSEI change at institutional levels has impacted upon, and potentially eroded, employee and organizational functioning, is germane to understanding the implications for

the institution's future. In Chapter 2 the state of the literature will be reviewed on the following: legitimacy; institutionalization; institutional legitimacy judgements; the inhabited nature of institutions; PWB; and the organizational outcomes, sickness absence and presenteeism. The literature review will address what is known about these concepts, their antecedents and effects, and their relationships to each other in order to proceed in a methodologically sound manner. The methodology, which is how the study is operationalized, will be covered in Chapter 3.

1.5. Delimitations of the study

The following delimit and establish the parameters and scope of the study:

- The study methodology (design, methods, and data analysis) determines the generalizability of the results. This study examined the influence of institutional field changes on individual employees and their organization and is representative of a particular PSEI in BC.
- The intent was that all levels of regular employees will be studied (executive, faculty, staff). The study will not be an in-depth examination of one sub group but will provide: general observations across an organizational population; comparisons among vocational, professional, administrative, and executive categories; and, comparisons across identified controls such as age, gender, length of employment, and job type.
- The methodology was quantitative to seek answers to the "what" questions (i.e., what is happening? what are the effects and relationships?). The general findings are fertile grounds for future research in the "how" and "why" (meaning) questions that will naturally follow.

1.6. Definition of terms

The following are definitions of key concepts used in this study:

- *Institutional Change*- The difference in form, quality, or state over time in an institution (Van de Ven & Hargrave, 2004).
- *Deinstitutionalization*- A process by which a legitimized and established (or institutionalized) organizational practice atrophies, erodes, or discontinues (Oliver, 1992). The organization fails to reproduce previously established, taken-for-granted, and legitimized practices and activities.
- *Legitimacy*- A generalized perception or assumption that the actions of an entity are "desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574).
- *Illegitimacy*- A generalized perception or assumption that the actions of an entity are undesirable, improper, or inappropriate within some socially constructed system.
- *Wellbeing*- Optimal psychological and affective functioning and experience (Ryan & Deci, 2001).
- *Wellbeing in the Workplace*- A positive state of feeling and functioning found in individuals when at work. Essentially, it is what is good for the employee and the organization, i.e., positive outcomes (Harter, Schmidt, & Keyes, 2003).
- *Sickness absence* - non-attendance (as from work or school) due to illness or injury; *also* the rate of such absence (Schaufeli, Bakker & Van Rhenen, 2009).
- *Presenteeism*- attending work while ill (Aronsson, Gustafsson, & Dallner, 2000; Dew, Keefe, & Small, 2005).

1.7. Assumptions

One assumption is that the study participants will reflect normal perspectives and experiences within the PSEI context. This is a reasonable assumption since PSEIs, for the most part, are highly institutionalized entities (Kraatz & Zajac, 1996; Scott, 1987), members or employees of PSEIs are well prototyped in the literature (i.e. non-conforming, highly autonomous) (Kraatz, 1996), and the PSEI changes are well documented as trends provincially, nationally, and internationally (Douglass, 2010).

2. LITERATURE REVIEW

2.1. Introduction

This section includes published literature on legitimacy, institutionalization, institutional legitimacy judgements, inhabited institutions, employee psychological wellbeing (PWB), and sickness absence and presenteeism.

The literature review proceeds in sections that are delineated according to the identified main research problem and sub problem. The main problem and sub problem sections are concluded with propositions that have been supported by the theoretical and empirical findings in the literature. The literature review is concluded with a summary of the main contributions and strengths of the review, the challenges and limitations, and the next steps that are important to consider in conducting the study. Threads among the four main constructs (two predictors and two outcomes) are woven together to explicitly identify insights and gaps in the theoretical and empirical literature. The six (6) propositions presented in the literature review are summarized in the conclusion to provide clear parameters for the research design presented in Chapter 3.

2.2. Main problem- Institutional Legitimacy Judgements, PWB and Organizational Outcomes

The main problem outlined in Chapter 1 is that, amidst institutional changes, the effects of employee's individual institutional legitimacy judgements on the organizational outcomes, employee sickness absence and presenteeism, are not known. We do not know the subjective and behavioural responses of individuals when they are faced with legitimacy questions about their institution. Although the concept of individual institutional legitimacy judgements has been theorized (Bitektine, 2011; Tost, 2011), to date no empirical research has been conducted to test the theories. Bitektine

(2011) and Tost (2011) have described how and why institutional legitimacy judgements are made but the primary interest in this study is how individual's subjectively and behaviourally react to an institution when its legitimacy is perceived to be in question.

To begin to understand this problem, the concepts institutionalization and legitimacy are explained. A working definition for the term legitimacy, its theoretical constructs, content, and processes follows. Next, to underscore the subjective human element of institutions, employees and work are depicted as important considerations in institutional theory. This is done by introducing the concepts of "inhabited institutions" and praxis. Following this PWB is introduced. PWB is one form of wellbeing that has been studied by theorists such as Ryff (1989) and Deci and Ryan (i.e., Ryan & Deci, 2000, 2001). It represents optimal human functioning and is comprised of a person's self-perceived functioning in important areas such as relationships, self-esteem, purpose and meaning, and optimism (Diener, Wirtz, Biswas-Diener, Tov, Kim-Prieto, Choi & Oishi, 2009). As such, PWB has subjective intraindividual dimensions, both private and social, is an important human condition, and is theorized as a driver of behavioural outcomes in the workplace. Its role as a predictor of organizational outcomes is seen as an appropriate and useful study alongside individual institutional legitimacy judgements. One drawback is that the construct validity of Ryff's (1989) PWB instrument scales has been empirically contested in the literature (Abbott, Ploubidis, Huppert, Kuh, Wadsworth & Croudace, 2006). An alternate validated instrument of PWB by Diener et al. (2009) that uses dimensions of existing scales by Ryff (1989) and Ryan and Deci (2000, 2001) is presented. Lastly, sickness absence and presenteeism are expanded upon.

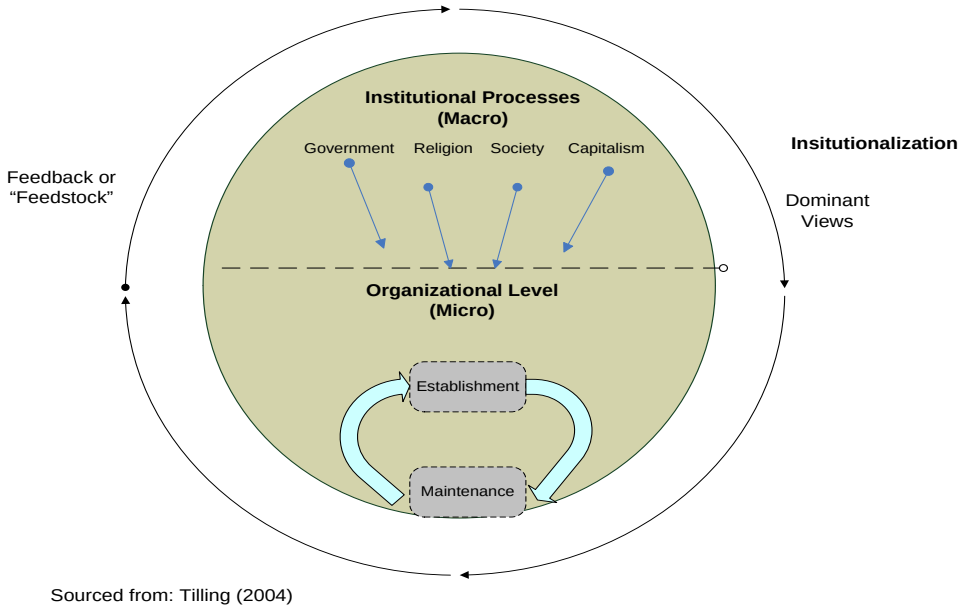
2.2.1. Legitimacy and Institutionalism

Dissipation and many of the longstanding, accepted, and taken for granted practices and procedures of PSEIs are being called into question because they are creating tensions with increased

accountability measures and competition for resources (Douglass, 2010). Oliver (1992) claims institutions experiencing such discontinuity and uncertainty are undergoing a process called deinstitutionalization. In a parallel manner Tost (2011) argues that legitimacy judgements failing to support taken for granted institutional models are experiencing the process of de-legitimization.

When viewing organizations from a macro-theory tradition, Tilling (2004) claims that legitimacy and institutionalization are interchangeable. Both empower the organization with meaning and provide a "social" place within broader structures. Figure 2 depicts this particular perspective of legitimacy. Below the macro institutional level is the organizational level. At this level there is a process of legitimizing that occurs whereby the organization seeks approval (Kaplan & Ruland, 1991) and status from groups in society (Tilling, 2004).

Figure 2: Equating Legitimacy with Institutionalization at the Macro Level



Sourced from: Tilling (2004)

Tost (2011) concurs with this view, however, distinguishes between institutionalization and legitimacy. Of the two constructs, institutionalization is both an outcome and a process whereas legitimacy is a process leading to institutionalization (Colyvas & Jonsson, 2011). Institutions are self-reinforcing and have a taken-for-granted quality. Thus, a taken-for-granted status, which is a

variant of legitimacy, is a necessary but not sufficient condition for reaching the outcome of institutionalization. An entity can be viewed as legitimate but not institutionalized if it has not obtained a capacity to defend and maintain itself, and ultimately, be self-reinforcing (Jepperson, 1991). The process of legitimation (the acquisition of legitimacy) is only one component of the process of institutionalization. Importantly then, it can be said that legitimation is present in an institutionalized state. Conversely, it is expected that in a deinstitutionalized state legitimacy would be questioned or judged and fall short in some way (i.e., illegitimacy judgements of the institution are evidenced). The process of institutional change necessarily involves shifts in individual's judgements. In this micro translation of the legitimacy of existing institutions it is proposed that individual's behaviours related to those institutions also shifts (Jepperson, 1991). In sum, legitimacy judgements have a reflective and evaluative component to them and will be expressed through behaviours within the institutional context.

2.2.2. Legitimacy Judgements

Legitimacy and judgement are authoritative words that when phrased together mean, in the broadest sense, acceptance of authority after considered decisions and mindful appraisal. Researchers in institutional theory have given significant attention to legitimacy (i.e., Meyer & Rowan, 1977; Oliver, 1991; Suchman, 1995). Because institutions and organizations are social entities the legitimacy and judgements about their social properties are viewed as being socially crafted. An evaluator's judgement complements the notion of legitimacy but little is known about what influences judgements, the considerations made, and what the implications are for organizational behaviours given a range of judgements. Since an evaluator's social judgement(s) can have an impact on an organization (i.e., a legitimacy judgement by an executive or a regulator), the evaluators' choice of the form of judgement to make, the influences that they are exposed to, and the

cognitive limitations that they have to cope with may have major consequences for the organization they are evaluating.

Legitimacy judgement is a form of social judgement that has rarely been studied from an insider's perspective, i.e., employees. It has most commonly been viewed from a macro institutional lens in the larger socio-political system (i.e., economic interactions at a national, international, or societal level). Although early explorations in institutional theory focused on socio-cognitive and psychological dimensions of institutional processes, neo institutional research has focused primarily on organizations seeking legitimacy from the macro field (Berger & Luckmann, 1966; Zucker, 1977). In this view, evaluative audiences have been allotted a passive role to observing the organization and its communications and processes as it interacts with external forces. The importance of subjective experience, active cognitive processing, information search efforts, reflection, evaluation, and social interactions that precede the formation of legitimacy judgements by social actors have received little attention (Tost, 2011). The exploration of the evaluators' perspective on legitimacy can help us to understand the process of stakeholder judgement formation, and provide insight into social, cognitive, and behavioural factors that can influence, compromise or bolster an organization's efforts to improve its legitimacy and sustain itself.

Table 1, sourced from Bitektine (2011), summarizes the most widely used definitions of organizational legitimacy judgements and shows that legitimacy can be understood as actors' perceptions of the organization, as a judgement with respect to the organization, or as the behavioural consequences of judgement which are manifested in actors' actions, i.e., acceptance, opposition, rejection, etc. Most of the definitions in Table 1 would identify an organization to be legitimate when it is perceived to be pursuing socially acceptable goals in a socially acceptable manner (Fombrun & Shanley, 1990; Maguire, Hardy, & Lawrence, 2004; Podolny, 2005; Rao, 1994; Suchman, 1995; Suddaby & Greenwood, 2005). Legitimacy is attributed to the organization by its constituents (Epstein & Votaw, 1978) and belongs to the evaluator (Zimmerman & Zeitz, 2002).

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Legitimacy justifies the organization's role and place in the social system (i.e., its institutional field), helps attract resources, and fosters continued support by its stakeholders and the public at large (Perrow, 1970). This poises legitimacy as an important resource for organizations (Parsons & Jones, 1960).

Although the "outside in" view (i.e., society looking in) has pre-dominantly been used, this study will examine the insider's view, that is, from those individuals working inside the organization. Kostova & Roth (Kostova & Roth, 2002) and Kostova & Zaheer (Kostova & Zaheer, 1999) call this internal legitimacy. Because Suchman's (1995) definition of legitimacy, highlighted in Table 1, is comprehensive, inclusive of the attributes mentioned above, and is broad in application, it is the operating definition for this study.

Table 1: Organizational Legitimacy Definitions

Definition	**Definition Scope**
"Appraisal of action in terms of shared or common values in the context of the involvement of the action in the social system" (Parsons & Jones, 1960, p. 175)	Judgement
Justification of organization's "right to exist" (Maurer, 1971, p. 361)	Judgement
Implied congruence with the cultural environment, with "the norms of acceptable behaviour in the larger social system" (Dowling & Pfeffer, 1975, p. 122)	Judgement and behavioural consequences (acceptance)
Activities that are accepted and expected within a context are then said to be legitimate within that context (Pfeffer, 1981, p.4)	Behavioural consequences (acceptance)
Array of established cultural accounts that "provide explanations for existence" (Meyer & Scott, 1983, p. 201)	Judgement
"Social fitness" (Oliver, 1991, p. 160)	Judgement
A generalized perception of organizational actions as "desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995, p. 574)	Perception and judgement
"The endorsement of an organization by social actors" (Deephouse, 1996, p. 1025)	Behavioural consequences (endorsement)
"Acceptance of the organization by its environment" (Kostova & Zaheer, 1999, p. 64)	Behavioural consequences (acceptance)
"The level of social acceptability bestowed upon a set of activities or actors" (Washington & Zajac, 2005, p. 284)	Judgement and behavioural consequences (acceptance)
"The degree to which broader publics view a company's activities as socially acceptable and desirable because its practices comply with industry norms and broader societal expectations" (Rindova, Pollock, & Hayward, 2006, p.55)	Perception and judgement
"A social judgement of appropriateness, acceptance, and/or desirability" (Zimmerman & Zeitz, 2002, p. 416)	Judgement

Source: Bitektine, 2011

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The process of institutional change inherently involves shifts in individuals' judgements of the legitimacy of existing social entities and, consequently, shifts in individuals' behaviours with respect to those entities (Hornsey, Spears, Cremers, & Hogg, 2003). Research at the micro level has focused on understanding how interacting individuals constitute social reality and what is viewed as acceptable within social systems (Powell & Colyvas, 2008). Largely absent from this research agenda is theoretical and empirical attention to the intraindividual dynamics of legitimacy judgements (i.e., the content, formation, and change of the judgements themselves) and the subjective and behavioural reactions of individuals when legitimacy loss is perceived. While acknowledging legitimacy as ultimately a collective-level phenomenon it is individuals' judgements that are the feedstock for the collective and societal understandings (Phillips Lawrence, & Hardy, 2004; Reay, Golden-Biddle & Germann, 2006; Suddaby & Greenwood, 2005; Zilber, 2002). An understanding of the individual-level dynamics of legitimacy judgements can inform our understanding of the role that individuals play in institutional change.

2.2.2.1. Concepts and Theories Related to Legitimacy Judgements

There is a cluster of related theories that are prevalent in social science and share a set of common features. Features of this group may purport individuals: serve their own interests (Fiske, 1993; Sidanius & Pratto, 1999), develop ideologies to justify those interests (Centers, 1949; Downs, 1957; Olson,1971), have strong preferences for members of their own kind (Allen & Wilder, 1975; Brewer, 1979; Tsui, Egan, & O'Reilly, 1992) , are hostile and prejudicial toward outsiders (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Brown, 2000; Pettigrew, 1982), and are conflict-seeking whenever it helps to advance their interests and identities (Sherif, 1967; Sidanius & Pratto, 1999). The term "group justification" theories as introduced by Jost & Banaji, 1994 and Jost & Banaji, 2004 may be loosely used to classify and contrast these concepts with the proposed individual institutional legitimacy judgements (IILJs) in this study. These clusters of theories hold

that people are driven by ethnocentric motives to build in-group solidarity and to defend and justify the interests and identities of fellow in-group members against those of out-group members. From a macro perspective, institutionalism and its associated organizational isomorphism fit within this net of theories. In the social scientific imagination, it is as if the advantaged are relentlessly looking to dominate and the disadvantaged are bursting revolutionaries and change agents. Both types of groups are primarily seen as self-interested and to have overt conflicts of interest. This has also been critiqued in the developmental history of institutional theory (Meyer & Rowan, 1977; Seo & Creed, 2002). These common assumptions are challenged in this study and a different perspective is presented. Exceptions and deviations from the received view can be helpful for creative theory-building (see McGuire, 1997).

Given the prolific nature of social science concepts it is important to identify where IILJs fit within the broad nomenclature of "group justification" and organizational theories. The similarities, differences, and uniqueness (both conceptually and empirically) of IILJs with other related organizational functioning concepts is important to explore for scientific reasons. IILJ is an intra-individual concept that focuses on institutional theory from a micro perspective. While the development of an IILJ measure is potentially seen as a valuable contribution to institutional and organizational theory, its location within a nomonological net must be theoretically explicable. For example, IILJ it is not unlike constructs in organizational behavior like commitment (Meyer, Srinivas, Lal, & Topolnytsky, 2007), organizational justice (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Lind and Tyler, 1988; Colquitt, 2006), power (French & Raven, 1959; Raven Bertram H.; Schwarzwald, Joseph; Koslowsky, Meni, 1998), and system justification (Jost, Blount, Pfeffer, & Hunyady, 2003)), etc. to name a few. In order to justify the study and measurement of IILJs it is important to map related concepts out to help avoid concept creep in a field as well as establish the utility of the measure for future research. Below a few related concepts are discussed briefly in order

to better understand potential areas of convergence and divergence with IILJ and begin to formulate a theoretical "family" for its positioning.

Commitment

Commitment is loyalty to a social unit (Porter et al.; Mowday et al., 1982). The social unit may be an organization, the subsystem of an organization, or an occupation. Most research on commitment focuses on organizations rather than subsystems or occupations. Commitment research often refers to "attitudinal" and "behavioural" commitment (O'Reilly and Caldwell, 1981) which is orientational and intentional in nature (i.e., invisible to an observer) rather than structural or an act that is observed. Porter and his colleagues (Mowday et al., 1982, pp. 26-8) make a further distinction. They claim attitudinal commitment is viewed as a disposition towards a social unit whereas behavioural commitment is intent to behave in some way, such as continuing to be an employee of an organization.

Mowday and Steers (1979) (Porter too) define commitment as: "the relative strength of an individual's identification with and involvement in a particular organization (p. 226). In particular, commitment is characterized by three factors: a strong belief in and an acceptance of the organization's goals and values; a willingness to exert considerable effort on behalf of the organization; and a strong desire to maintain membership in the organization (p. 226)."

Although Mowday and Steers (1979) do not explicitly refer to "loyalty" in their definition of commitment scholars such as Kallenberg and Van Buren (1996) claim a loyal employee is likely to be committed to the employing organization. Meyer and Allen (1991) propose a three component view of organizational commitment which includes affective, continuance, and normative dimensions. The affective commitment refers to employee membership, level of identification, and involvement in the organization. This is similar to the view of commitment proposed by Porter and his colleagues (1974). Continuance relates to the tendency to engage in a consistent line of work

activity. The normative dimension is based on the belief that an employee's obligation to the organization will determine whether or not they stay.

It is identified that there is some conceptual overlap of IILJs and commitment, however, they target different things. IILJ examines the micro process of perceptions and judgments whereas commitment is an outcome. The forming and judging process inherent in IILJs may enhance or detract from an employee's commitment however an established commitment to an organization does not preclude or prevent IILJs from occurring if something occurs in the work environment that makes an employee re-assess their perceptions about it.

Effectiveness

Effectiveness is the extent to which an organization achieves its goals (Barnard, 1938), i.e., a University that successfully educates its students. Data about effectiveness may also be found in discussions of organizational performance, failure, decline, success, mortality, and survival (Price, 1997). Organizations may seek to achieve multiple goals. Many universities, for example, seek both to educate their students and to increase knowledge. Goals of an organization may be determined by verbal statements since they are often widely publicized with internal and external stakeholders. However, the process is more complicated than this because behaviour must also be examined. Statements about goals will sometimes be for public consumption rather than truly operative (Simon, 1950). Thus, judging organizational effectiveness is based on achieving goals or outcomes whereas the process of IILJs may include judgments about organizational effectiveness but is not defined by the outcome itself. It may encompass assessments of verbalized organizational goals but may also include an employee's personal goals that are in contention with the organizations aims.

Ideology

An ideology is a set of beliefs about the nature of an organization and its environment (Price, 1997). An illustration of ideology is the theology of the Roman Catholic Church. Not only does

ideology contain beliefs about the nature of the church but it also contains norms about a good life. Ideology is also found in discussions of sagas, philosophies, corporate cultures, and creeds or statements of faith. Ideological development seems to be positively correlated with organizational goals and ultimately, effectiveness (Price, 1997). Well-developed ideologies are often called philosophies and the typical organization evidences little or no ideological or philosophical development (Price, 1997). Selznick and Clark (Clark, 1956; 1960; 1970; Selznick, 1953) have provided a substantial body of empirical organizational data about ideology however the study of this concept does not appear to be a concern among organizational scholars when compared to concepts like commitment and satisfaction. A measure of the concept has never been developed. IIlJs are not the same as ideologies but changing organizational conditions related to ideological shifts may give rise to uncertainties and contradictions which will likely prompt the process of IILJs within organizations.

Justice

There are two broad dimensions of justice: distributive and procedural (Price, 1997). Distributive justice addresses the degree to which rewards and punishments are related to inputs such as performance (Lind and Tyler, 1988; Lind, 2001; Sheppard, Lewicki, & Minton, 1992). For example, distributive justice is high when employees who contribute allot to the organization receive more rewards and employees who contribute little to the organization receive few rewards. Discussions about equity and merit often represent distributive justice because rights are applied universally to all members of an organization. Procedural justice literature is found in discussions of equality. Procedural justice refers to the “perceived fairness” of decision-making procedures. It is judged by whether procedures are consistent, unbiased, accurate, and correctable (Leventhal, 1980, cited in Colquitt, 2006), and open to employee input (Thibaut & Walker, 1975, cited in Colquitt, 2006).

Both dimensions of justice are commonly measured with perceptual data and refer to organizational behavior (Price, 1997). McFarlin and Sweeney (1992) identify that it is difficult to include distributive and procedural justice in one definition of justice since they appear to be two distinct concepts. For example, when the term "fairness" is used in discussions of distributive justice its meaning differs from when it is used to discuss procedural justice. Nonetheless, researchers often use the common perceptual approach (i.e., perceived fairness) to assess study participants justice concerns (Kim, Price, Mueller, and Watson, 1996; McFarlin & Sweeney, 1992). This is in contrast to the universal application of rights within an organization. Although both concepts are included under the heading of justice they ought to be treated as different concepts unless they can both be included in a general definition (Price, 1997). The concept distributive justice does have some conceptual overlap with the moral dimension of legitimacy (Tost, 2011; Tyler & Degoey, 1995). Tost (2011) identifies that "fairness" represents one part of the content of individual level legitimacy judgments. For example, moral legitimacy relates to subjective perceptions of the fairness or justice of the distribution of socially distributed outcomes (Major & Schmader, 2001: 180). The content of distributive and procedural justice may be subjects of contention or represent points of contradiction within an organization. The process of IILJs may be triggered by a questioning or malcontent employee who believes a particular situation or outcome to be unfair and is reassessing the organizations legitimacy as a result. Because other dimensions of individual levels of legitimacy exist, it is important that scholars differentiate the construct of legitimacy from the construct of fairness.

Power

Power is understood as the ability to influence other people and events (Dahl, 1957). In other words, power is the production of intended effects by some person(s) on other person(s) (Price, 1997). Power relations are often subtle, constantly changing, and ambiguous. In theory, employees

obey a mangers authority and this represents power. However, supposedly unquestioning obedience may actually be a form of covert resistance. The nature of power in organizations is therefore a useful study because it can effect an organizations functioning. Power may studied at the macro, meso (organizational), or micro level (Drummond, 2002)

A definition of power most commonly focuses on three sub-concepts - autonomy, centralization, and bases of power (Price, 1997). Each of the three sub-concepts examines a different aspect of power. Unlike the three sub-concepts, power is a label that refers to a category of behaviour rather than a variable. An employee or manager exhibits power behaviour or does not.

Autonomy is the degree to which an organization has power with respect to its environment (Selznick, 1953, pp. 29-37). As a public institution, the typical Post-Secondary organization has limited autonomy. External units, such as Ministries, exercise substantial power over the Post-Secondary organizations decisions with respect to policy, budget, personnel, and purchasing. Concern for organizational autonomy can be found in strategy, the exercise of political power over organizations in the society, and the role of governing bodies or boards in relation to the organization to name a few. Organizations that are subject to a great deal of institutional pressure have restricted power relative to the environment (Kalleberg &Van Buren., 1996). Another example of restricted organizational power is when an organization is subject to a high level of union pressure that constrains its ability to make autonomous management decisions.

Centralization refers to the differential distribution of power within an organization (Hall, 1982, pp. 114-15). Maximum centralization would exist if a single individual exercised all the power. Alternately, if all employees of an organization equally shared the power this would represent minimum centralization. Organizations are often somewhere between these two extremes. Autonomy and centralization focus on the distribution of power. The difference is that autonomy concerns the distribution of power between the organization and its environment, whereas centralization centers on the distribution of power within the organization (Price, 1997).

Bases of power refers to the reason one person conforms to the intentions of another person. The person whose intentions are followed can be either a supervisor or a peer. Most of the empirical research uses French and Raven's (1959) typology of power, which examines the reason one person conforms to the intention of another (i.e., coercion, reward, specialized knowledge or expertise, etc.).

Weber provides an alternative conceptualization of the bases of power in his discussion of the dimensions of authority (Bendix, 1960, pp. 289-449) and legitimacy (Bendix, 1960, pp. 289-459). The term power is often conflated or intertwined with the concept authority. However, a distinction must be made between these two concepts. Power refers to the capacity to influence others and the person with power has the ability to manipulate or change the behaviour of others. On the other hand, authority is the source of power and is legitimate. Authority grants legitimacy to power whereas power itself need not be legitimate (Price, 1997). When authority is accepted and not questioned or challenged the process of individual level judgements and assessment of the organization will become taken for granted and disappear.

System Justification

In many contexts, the individual's personal interests may bias their beliefs or attitudes (Jost et al., 2003. For example, to bolster self-esteem, individuals may adopt attitudes and beliefs that support the value of their social roles or categories. In contrast, in other contexts, the attitudes and beliefs of individuals actually contradict their personal interests (Jost et al., 2003). For example, individuals who correspond to the lowest socio economic level often espouse attitudes and beliefs that undermine the interests of their stratum. System justification theory was formulated to explain the ubiquity of these attitudes and beliefs at the macro level (Jost et al., 2003; Jost, Glaser, Kruglanksi, & Sulloway, 2003; Jost, Pelham, & Carvallo, 2002). The seemingly incongruous nature of attitudes and beliefs that appear to contradict the personal interests of individuals at the micro level resonate with the dominant macro view in institutional theory that supports isomorphism across fields of

institutions. In a similar way, system justification theory identifies that individuals like to perceive the world as predictable and certain. Without this belief they would not feel a sense of control and negative emotional states would prevail (Lerner, 1980; Rankin, Jost, & Wakslak, 2009). When people perceive the world as predictable they feel motivated to assume that society is fair and just (Jost et al., 2003). Accordingly, they justify the existing structures and hierarchies in society, which substantiates the legitimacy of societal principles and practices. Thus, individuals embrace the prevailing system to instill a sense of certainty, stability, and safety (Jost & Hunyady, 2002; Jost, Wakslak, & Tyler, 2008).

System justification theory initially emanated from the status-legitimacy hypothesis (for a review, see Brandt, 2013) and the proposition that people who are low in status, such as individuals whose income or education is limited, are more likely to perceive the existing systems as legitimate. The status-legitimacy hypothesis claims these individuals are more likely to trust large institutions such as banks, courts, companies, military, and government agencies (Jost et al., 2003). Jost et al. (2003) explained this contradiction by introducing a concept called cognitive dissonance. They argued that people who are low in status experience a sense of conflict or dissonance because, although they are disadvantaged by these systems, they do not protest against them. Instead they resolve this dissonance by preferring to believe the systems are worthy and legitimate.

Brandt (2013) undertook a comprehensive study that challenges this status-legitimacy hypothesis. To assess status, five measures were included, such as income, education, gender, race or ethnicity, and social class. To assess legitimacy, the degree to which individuals express trust and confidence in the major banks, courts, companies, military, and government agencies was measured.

The findings revealed that, in general, people who were lower in status did not perceive the systems as more legitimate. Only one of the 14 possible relationships supported the status-legitimacy hypothesis. The relationship between status and legitimacy did seem to vary appreciably across the samples. Variables that should amplify cognitive dissonance, and thus increase this relationship, did

not tend to moderate this association in the expected direction. Future research is needed to understand why the relationship between status and legitimacy varies considerably. According to Brandt (2013), the status-legitimacy hypothesis is tenuous; however, many other features of system justification theory (i.e., concepts of compensatory control, motivations to resist change, and biases due to justice motives) seem helpful.

Although the reciprocal and synergistic relationship between macro and micro social structures is recognized in system justification theory and IILJs, it is also important to identify points of divergence. The concepts system justification and IILJs differ from each other in the level and type of investigation (empirical and operational). System justification targets the influence of macro institutional systems on individual's attitudes and behaviours and IILJs targets micro influences on organizational functioning. Specifically, IILJs focus on the content and process of individual's subjective and behavioural reactions to a perceived loss in their organizations legitimacy. System justification targets institutionalized and legitimizing attitudes and behaviours whereas IILJs target perceptions about organizational legitimacy changes, deinstitutionalization, and de-legitimization.

2.2.2.2.The Content and Process of Legitimacy Judgements

Based on Suchman's (1995) definition of legitimacy judgements, the content of legitimacy judgements consists of the substantive beliefs and perceptions that influence an individual's assessment of the extent to which an entity is appropriate for its social context. An understanding of the content of legitimacy judgements includes what it means for an individual to judge an entity such as an organization or a leader, as legitimate (Powell & Colyvas, 2008). In order to study the relationship of legitimacy judgements to the subjective and behavioural reactions of employees empirically, it is necessary to identify the content of the judgements themselves. Tost (2011) proposes a theoretical model that integrates social psychological and institutional theory content and processes of legitimation in order to construct how legitimacy judgements develop and change over

time, i.e., changes from a judgement of legitimacy to one of illegitimacy. The processes provide a foundational context for how employee reactions, both subjectively and behaviourally, may occur. The *judgement reassessment* phase identified by Tost (2011) is particularly relevant. This phase, depicted in Figure 3, is triggered when individuals perceive a loss or change in their institution's legitimacy.

Content

To begin, it is important to distinguish the content of legitimacy judgement and what represents isomorrphism, taken-for-grantedness, and unquestioning acceptance. Tost (2011) argues that two types of legitimacy constructs identified by institutional theorists do not warrant consideration in legitimacy judgements because they do not constitute substantive content bases. These are: cognitive legitimacy and regulative legitimacy. Cognitive legitimacy represents the absence of substantive content in the legitimacy judgement whereby nothing is questioned or challenged (i.e., a state of taken-for-grantedness or unquestioning obedience) (W. R. Scott, 2001; Ashforth & Gibbs, 1990; Suchman, 1995; Tost, 2011). Regulative legitimacy represents social cues indicating the validity of an entity (i.e., indicators of collective regulation and collective-level legitimacy) but does not represent a substantive domain of individual judgement of content in itself (Tost, 2011). For these reasons, these types of legitimacy judgements are exempt from the following discussion.

Within social psychology two models have been proposed to specify the content of legitimacy judgements at the individual level: instrumental and relational. Institutional theorists have not explored the relational dimension to legitimacy (Tost, 2011) but the instrumental dimension has been of interest and is called pragmatic legitimacy (Suchman, 1995). Instrumental models hold that individuals react to the instrumental aspects of their experiences with social entities and authorities (Hollander & Yoder, 1980; Tyler, 1997). Both the instrumental (or pragmatic) dimensions are rooted in the self-interest calculations of individuals and groups. Entities will be judged as instrumentally

legitimate when they are perceived as promoting the material interests of the individual and facilitating the individual's attempts to reach self-defined goals or outcomes. They also reflect the judgement of legitimacy (i.e., can the individual justify obeying their organization or supervisor, does it provide value to them, and is obedience warranted). Examples of perceptions or beliefs that constitute the content of the instrumental dimension of legitimacy judgements include perceptions or beliefs related to the effectiveness, efficiency, or utility of the entity. Support for an entity by individuals may be provided because its continued existence promises more value than its absence or because the entity is seen as being aligned to their broader interests.

In contrast, social psychology models of relational legitimacy hold that legitimacy results when a social entity communicates to the individual that they are respected and have dignity and status within the group context (Tyler & Lind, 1992; Tyler, 1997). From a relational perspective, an entity is seen as legitimate when it affirms individuals' social identities and bolsters their sense of self-worth. Examples include perceptions or beliefs related to the benevolence, cooperation, and solidarity that characterize the entity.

The primary determinant of legitimacy among many institutional theorists is one in which an entity conforms to moral values and ethical principles (Scott, 2001). Suchman (1995, p. 579) describes the moral dimension of legitimacy as grounded in *a prosocial logic* and concerned with whether the entity in question promotes "social welfare, as defined by the audience's socially constructed value system." Thus the basis of moral legitimacy differs fundamentally from the self-interested orientation in the instrumental dimension. The moral bases relate to the individual's perceptions or judgements about conformity (i.e., willing acceptance), loyalty, social welfare and perceived fairness and integrity of the organization. As an example, an entity is perceived as legitimate on moral grounds when it is perceived to be consistent with the evaluator's moral and ethical values. Recently social psychologists have begun to adopt a moral dimension to legitimacy as

well (Tost, 2011; Tyler & Degoey, 1995). Morality is argued to be an important evaluative dimension of social entities (Skitka, Bauman, & Lytle, 2009).

Empirical evidence suggests that both instrumental and relational concerns have an impact on individuals' legitimacy judgements (Tyler, 1997). Tost (2011) conceives of instrumental concerns and relational concerns as the bases for two separate dimensions of perceptions or beliefs that underlie the content of legitimacy judgements. As such Tost (2011) advocates they be examined for their independent and interactive effects on ultimate legitimacy judgements. This would permit researchers to consider how aspects of the social context or characteristics of the evaluators may moderate outcomes when one model (or the other) comes to dominate in the legitimacy judgement process. Because of the distinct but related nature of these two dimensions of legitimacy judgements, an individual may view an entity as legitimate: on both instrumental and relational grounds; as legitimate from an instrumental perspective (or relational perspective); as illegitimate from a relational standpoint (or instrumental perspective); or as illegitimate on both grounds. Thus, as opposed to being viewed as separate models of legitimacy they are separate components or dimensions of legitimacy that can be considered conjointly by researchers when studying the circumstances under which the overall legitimacy judgement will impact behaviour. To extend this view, Leach, Ellemers and Barreto (2007) demonstrate that, in addition to instrumental and relational dimensions of legitimacy judgement, moral concerns are distinct factors of evaluation. They claim that in many circumstances morality concerns are actually more important in evaluations than are instrumental and relational concerns.

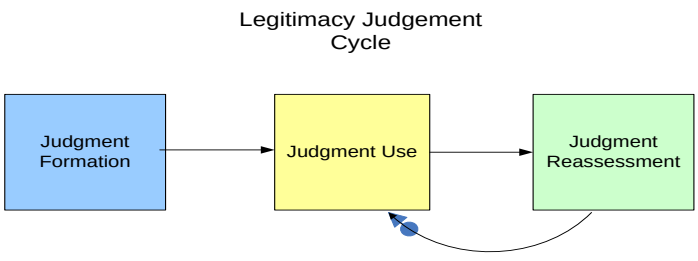
There is considerable overlap between social psychologists' and institutional theorists' views of legitimacy. In this proposed study the three social psychology dimensions, that is, instrumental, relational, and moral, will be used to operationalize legitimacy judgements because it is felt that all are important when considering the content of individual legitimacy judgements within a social entity like a PSEI.

It is important to highlight that although the three dimensions are distinct, they may also overlap. The specific beliefs and perceptions that underlie any given legitimacy judgement may fall into one or more categories. Legitimacy judgement dimensions may also have considerable variableness due to individual value orientations and group or organizational culture (Suchman, 1995). Examining the content and the nature of legitimacy judgements highlights that there are important mechanisms and processes at work in the act of judging.

Process

Legitimacy is viewed as the key driver of institutional change by institutional scholars yet little research has examined how individual level legitimacy judgements develop and change over time. To date institutional theorists have not examined how individuals come to judge existing institutional arrangements as legitimate or illegitimate or how those judgements emerge to motivate individuals to work for change, maintain the status quo, engage in counterproductive work behaviours (CWBs), or leave. Instead research has focused on how individual interactions constitute social reality and shape institutional change (Reay et al., 2006; Zilber, 2002; Zucker, 1977) or how discourse is used as a tool of influence in the process of institutional change (Phillips et al., 2004; Reay et al., 2006; Suddaby & Greenwood, 2005; Zilber, 2002). Tost's (2011) legitimacy judgement process model focuses on intraindividual legitimacy judgements. It has three cyclical stages: judgement formation, judgement use, and judgement reassessment (See Figure 3).

Figure 3: Legitimacy Judgement Cycle

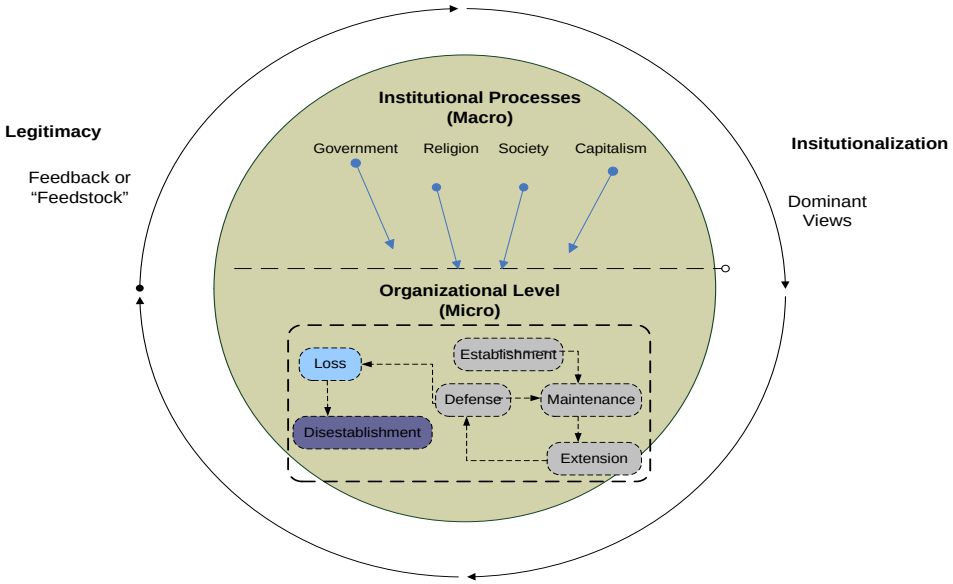


Sourced from: Tost (2011)

In the judgement formation stage the individual forms legitimacy judgements using either a passive or evaluative mode of information processing. The generalized legitimacy judgement that results from the judgement formation stage serves as a simple rule of thumb requiring little time, information, and computation in the use stage. The use stage is characterized by a gradual process of assimilation and ultimately a judgement is simply taken for granted. In the reassessment stage the legitimacy judgement process involves a more effortful and deliberate legitimacy evaluation of the social entity along instrumental, relational, and moral dimensions. It is in the reassessment stage of the legitimacy judgement process that judgements of illegitimacy are most likely to emerge. The focus of this study is individual employee's subjective and behavioural reactions to a perceived loss of institutional legitimacy. In the reassessment judgement stage, to the extent that an entity is viewed as illegitimate, people will actively seek to change it or oppose it (Tost, 2011).

There are circumstances in which individuals come to view existing social entities as illegitimate (Tost, 2011). Sometimes individuals desire and promote institutional change. A theory on legitimacy judgement processes must account for the circumstances that lead to a more critical consideration of the legitimacy of existing institutions and social arrangements. The judgement reassessment stage of the legitimacy judgement process addresses this. To visualize the reassessment judgement stage in the broad institutional and legitimizing model presented by Tilling (2004) see Figure 4. It shows how the defence fails or is questioned which leads to loss and disestablishment of the institution (i.e., de-institutionalization).

Figure 4: Re-assessment Judgement Leading to Disestablishment



Sourced from: Tilling (2004)

Rather than bolstering initial legitimacy judgements, individuals in the judgement reassessment stage are motivated to make effortful and considered personal assessments of the legitimacy of the entity (Tost, 2011). They aren't necessarily more objective in their judgements but rather are more motivated to engage in the process of judgement formation because something has become misaligned or contentious in their internal judgement processes. Entering the judgement reassessment stage does not necessarily mean that the judgement itself will ultimately be revised. An individual may reassess the judgement and decide that it does not require revision. The key characteristic of the judgement reassessment stage is that the individual is motivated to actively reconsider the existing legitimacy judgement and the evaluative mode predominates. Individuals engage in active attempts to evaluate the entity along the dimensions of instrumental, relational, and/or moral legitimacy, which propel judgements of generalized legitimacy or illegitimacy. The primary emphasis is on individual assessments of the instrumental, relational, and moral status of the entity because the motive to (re)form a personal judgement has become highly important for personal reasons.

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According to Tost, (2011), transitioning to the judgement reassessment stage raises two issues. The first issue is that institutional theorists struggle with the paradox of embedded agency, which refers to the tension between the idea of individuals as active and autonomous agents of their institutional environments and the constraining view of individuals' behaviours as determined by the institutions in which they are embedded (Battilana, Leca, & Boxenbaum, 2009; Seo & Creed, 2002). It is paradoxical to think that individuals can change their institutions if they are controlled, conditioned, and constrained by the very institution they wish to change (Holm, 1995). The second issue is found in social psychological research. The circumstances under which individuals will engage in effortful and reflective information processing (judgement reassessment stage) rather than conserve cognitive energy and resources is important to know. The process that leads individuals to begin to actively interrogate institutional arrangements and to imagine possible alternatives is not well understood. Tost's (2011) model of legitimacy judgement process offers a micro framework that renders the idea of institutional disestablishment and deinstitutionalization possible (Tilling, 2004; Oliver, 1992). The factors that lead people to shift from the use stage, where institutional arrangements are passively accepted, into the judgement reassessment stage, where institutional arrangements are actively questioned, may help in understanding what occurs when institutions change.

These two issues, when integrated, offer some plausible reasons for triggering an active judgement reassessment process. Institutional theorists claim there are potentially three instigating sources: jolts, contradictions, and reflexivity. It is important to note that the context for this study, PSEIs, is experiencing jolts and contradictions in its environment. Jolts such as technological changes, social upheaval, actions of competitors, or regulatory changes, can produce malfunctioning and discontent within existing social entities (Rasinski, Tyler, & Fridkin, 1985; Tost, 2011). These

jolts prompt ideas about alternate institutional arrangements and change (Battilana et al., 2009; Greenwood, Suddaby, & Hinings, 2002). Contradictions in institutional logics[4] can lead individuals to question the legitimacy of existing institutional arrangements (Greenwood & Suddaby, 2006; Hoffman & Ventresca, 1999; Seo & Creed, 2002). Actors are part of multiple institutional fields and it is highly probable that conflicts and contradictions are experienced amidst this variability (Seo & Creed, 2002). Given the pervasive nature of contradictions, Tost (2011) postulates that it is only those contradictions that have meaningful implications for the individual's valued goal pursuits, (i.e., achievement of desired outcomes or personal values), that will motivate the individual to expend the cognitive energy for the judgement reassessment stage. Finally, reflexivity, the third reason for triggering an active judgement reassessment process, refers to the ability of individuals to distance themselves from institutional arrangements in order to consciously reflect on them. This reflective consideration is what occurs in the reassessment stage. Some theorists suggest certain personality types or traits predispose particular individuals to engage in this type of reflection (Greenwood et al., 2002).

An understanding of how legitimacy judgements develop and change over time can contribute substantially to scholarly understanding of the individual-level dynamics involved in the support of and resistance to institutional change. Legitimacy seems to provide organizations with a reserve of support that enhances the likelihood of organizational survival (Dowling & Pfeffer, 1975; Rao, 1994). This reservoir also perpetuates organizational influence by increasing individuals' loyalty to the organization and willingness to accept organizational actions, decisions, and policies (Tyler & Blader, 2005; Tyler, 2006). Because legitimacy functions as a pivotal cognition that impacts individual's inclinations to support a social entity or work for change, understanding how and why

[4] Institutional logics are the underlying assumptions that shape ways of viewing and thinking about the social world within an institutional field (Seo and Creed, 2002).

legitimacy judgements change can help researchers understand how and why individual's behavioural orientations to social entities may shift and cause them either to support or to resist institutional change.

In sum, macro-level institutional theorists have studied the dynamics of the proactive pursuit of change while micro-level organizational behaviour theorists and social psychologists have focused primarily on studying strategies of coping with change (Judge, Thoresen, Pucik, & Welbourne, 1999) or resisting change (Agocs, 1997; Bovey & Hede, 2001; Oreg, 2003; Oreg, 2006). These perspectives have been delimiting because either organizational change is presented as a hindrance to employees' feelings of wellbeing (i.e., as something individuals must cope with) or employees are viewed as a hindrance to organizational change (i.e., as resistant to the changing needs of the organization as a whole). Although work in both of these areas is important for a broad understanding of the psychological dynamics of organizational change, there is also a need for more research viewing individuals as potentially active participants and drivers in institutional change and the ways in which this happens (Dutton, Ashford, O'Neill, & Lawrence, 2001). Tost's integrative model of the content and processes of legitimacy lays the foundation for a slightly different understanding of the construct at both the micro and macro levels and for multilevel theorizing on institutional change. An integrative theoretical framework highlights legitimacy judgements as important indicators of individual's reactions, subjective and behavioural, to a perceived loss in an institutions legitimacy status.

2.2.3. The Human Element - Inhabited Institutions

The relative significance between agency and institutional embeddedness has been one of the central issues of institutional arguments (Hallett & Ventresca, 2006). The neo-institutional emphasis on the static, stable aspect of institutionalization has left the development and change of institutional arrangements unexplained (Barley, 1986; Heimer, 1999; Stinchcombe, 1997). A dominant view

within this macro perspective has been to see people as the "carriers" of institutional processes (DiMaggio, 1988; Scott, 2001, p. 475). In a critique of this belief, Creed, Scully and Austin (2002) claimed institutions are depicted as garments and people need only put them on and enact them in everyday life. Other scholars also believe this view is narrow and over-socialized in its conception (DiMaggio, 1988). If people are to be seen as more than "carriers" of institutions and if meanings are derived in part from social interactions, then people and the ways in which they do things, individually and together, are fundamental components of "institutions" (Fligstein, 2001; Wrong, 1961). At the other extreme, focusing only on actors' agency presents a view of institutional contexts full of opportunistic actors engaging in acts and struggles unaffected by the institutional influences. Researchers such as Seo and Creed (2002), Barley and Tolbert (1997), Scully and Creed (1997) and Hallett (Hallett & Ventresca, 2006; Hallett, 2010) provide useful approaches to resolve these theoretical tensions.

Scully and Creed (1997) proposed the term *inhabited institutions* as a category for organizational research that brings people back into institutions. Most of the research in this area has centered on work activities as a type of *agency* within institutional contexts. For example, Barley and Tolbert (1997) draw from Giddens's (1984) work on structuration "to articulate a model of how institutions are formed, reproduced, and modified through interplay of action and structure" (Barley & Tolbert, 1997, p. 94). Their model is comprised of four conceptual components: *encoding* which is embedding of institutional principles in work activities and behaviours (scripts); conscious or unconscious *enactment* of these encoded scripts; *revision or replication* of scripts; and *objectification and externalization* of work activities whereby they become taken-for-granted and feedstock for future actions. Although Barley and Tolbert's research is largely conceptual, they make a valuable contribution to understanding the micro foundations of institutions. The limitation is that the focus is

on the process and outcome of institutionalization and does not include the opposite process and outcome, deinstitutionalization.

To extend the *inhabited institutions* concept further, Hallett (2010) argues that organizational sociology and new institutionalism have been oriented towards a macro structural perspective and decoupled[5] from their foundations in human action. The decoupling is problematic for two related reasons. First, "institutions become abstractions made real" (Barley & Tolbert, 1997, p. 95) without a foundation of social interaction. Although institutions enter organizations, it is through human action and social interaction that interpretations, meanings, and changes occur as people enact and coordinate the activities that strengthen or challenge institutions. Second, meaning arises through social interaction (Berger & Luckmann, 1966) as well as through macro institutional logics. Institutions are not hollow vessels and people, their activities, and their individual as well as collective natures represent the fundamental components of institutions (Scully & Creed, 1997). Thus institutions are faced with an important question about what to do about the people who inhabit them.

Seo and Creed (2002) propose using Benson's (1977) dialectical perspective to explain the dynamic interplay between institutional context and human agency. Berger and Luckmann[6] (1966) initially adopted the term dialectic to refer to the mutual formative process between humans and society. Seo and Creed's (2002) framework requires that institutional contradictions occur as a precursor to institutional change. Contradictions occur from the ongoing changes in the social

[5] Decoupling is the creation and maintenance of gaps between formal policies and actual organizational practices (Meyer & Rowan, 1977). Meyer and Rowan (1977) have argued that decoupling enables organizations to gain legitimacy with their external members while simultaneously maintaining internal flexibility to address practical considerations. Recoupling, the reverse of decoupling (Hallet, 2010), is when policies and practices that were once loosely coupled (or decoupled) may become coupled (or tightly coupled) (Hallet, 2010). An example of tight coupling is when accountability practices (i.e., reporting of finances, evaluation) that were once minimized become required and regularly monitored practices.

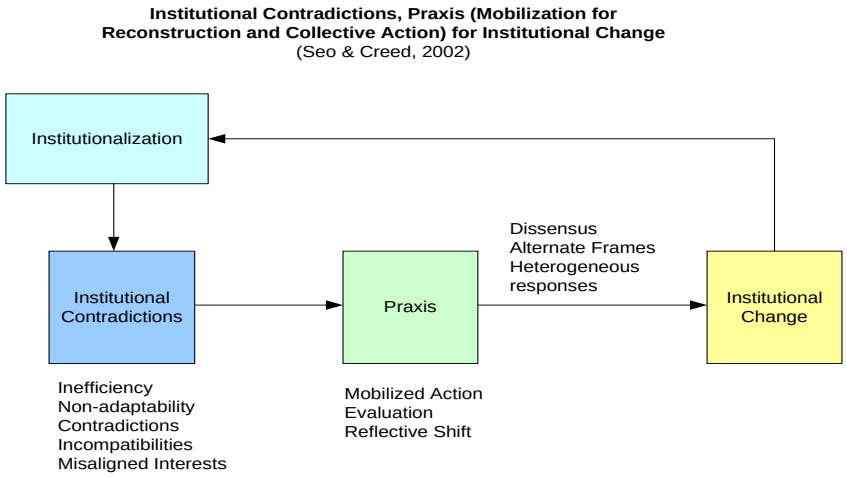
[6] Berger and his associates provide a summary of the three dialectical moments of externalization, objectivation, and internalization: "Society is a human product. Society is an objective reality. Man is a social product" (Berger and Luckmann, 1966, p. 61).

construction of institutional arrangements and the legitimacy challenges those institutional arrangements pose. The institutional fabric is weakened and individuals question and evaluate institutional practices (Seo & Creed 2002).

The human agency arising from individual's questions and judgement of institutional practices is conceptualized as praxis[7] which links institutional embeddedness, contradictions, and change (Seo & Creed, 2002). This is depicted in Figure 5. The concept of praxis and the conceptualizations of action and agency differ from most of the institutional literature in that actors are not simply depicted as passive recipients of institutional frameworks, i.e., unconsciously enacting institutional scripts. Nor are they viewed as opportunistic social actors taking action, unconstrained by existing institutional arrangements to enhance their individual interests (Meyer & Rowan, 1977). Praxis points to a particular type of action, rooted in a collective consciousness that is conditioned but not determined by existing social arrangements (Blumer, 1969). Critique, pragmatism, and collective action, rather than orthodox compliance or strategic resistance, are the premise of action in the praxis perspective. Praxis, as conceptualized here, is congruent with the process that occurs in Tost's (2011) judgement reassessment phase.

[7] Praxis is the unity of theory and practice (Holmes & Warelow, 2000).

Figure 5: Institutional Contradictions, Praxis, and Change



A theory of institutional change incorporating the concept of praxis emphasizes agents' ability to artfully mobilize different institutional practices and resources within contradictory institutional environments. Thus, praxis, as described here, may be a response to changes in institutional types (political, revolutionary, economic), levels (organizational, inter-organizational), and contexts (i.e., tightly coupled, loosely coupled[8]).

The sources of institutional contradictions identified in the dialectical model presented by Seo and Creed (2002) clearly indicate that the seed of institutional change is likely to grow where and when institutionalized norms and practices conflict with day-to-day functional or efficiency needs, become incompatible with changing economic and institutional environments, and no longer serve the interests and ideas of actors enacting the given norms and practices. Such contradictions can prompt actors to engage in praxis to legitimate their conduct at work (Benson, 1977).

The dialectical relationship between social construction and the practical concerns of agents (Fligstein, 1997) and the theoretical and institutional shaping of agents' understanding and action

[8] Synonymous with coupled and decoupled respectively.

(Barley & Kunda, 1992; Mizruchi & Fein, 1999) provides organizational agents opportunities to either legitimize or challenge and resist existing organizational forms and practices. Therefore, organizational and institutional change can be promoted not only through the critique of existing organizational forms but also through active commitment to social reconstruction of organizational forms that move toward the realization of human potentials, democratic pluralism, liberty, and social equality (Benson, 1977). Empirical research can be useful to discover the implications of a praxis model of institutional change and the validity of the same. Future research directly testing the dialectical model, in its entirety or in part, would focus on the interconnected nature of institutional context, institutional contradictions, human agency, and institutional change.

Conceptual and empirical works that expand a dialectical framework and the concept of inhabited institutions emphasize the important link between praxis and institutional change. While acknowledging inhabited institutionalism has a robust social psychology basis, it must be emphasized that it does not ignore social structure (Barley, 1986; Barley & Tolbert, 1997). Institutional myths like accountability, which is a social structure for compliance and performance (Hallet, 2010), are part of a persistent environment that confronts organizations. Notwithstanding the importance of social structure, ideally theorizing and research would also specify the concrete processes and mechanisms through which social actors' actions (praxis) ultimately challenge institutional arrangements, cause particular outcomes (expected or unexpected) or create new arrangements. Social actor's reactions to institutional changes and a perceived loss of institutional legitimacy can potentially inform this process.

2.2.4. Wellbeing

Wellbeing (WB) is a broad concept that encompasses a number of factors that span all life domains including the workplace (Rodin & Ickovics, 1990). Any conceptualization and operationalization of wellbeing must reflect this understanding while delimiting its specific

dimensions as necessary for the purposes of answering the research question guiding this study. Because of its wide interest, WB is an often contested concept with several plausible hypothesized models and approaches reflecting different contexts, purposes and foci of attention (Veenhoven, 2004). The concept of WB is widely used in social and economic research, but not always with a clear definition or understanding of what constitutes WB. A considerable body of literature is aimed at clarifying the concept of WB and identifying its constituents. Underlying this literature are two contrasting perspectives: one in which WB is associated with pleasure and the satisfaction of desires or preferences (hedonic), and the other in which it is associated with the life activities in which people engage (eudaimonic) (Ryan & Deci 2001).

2.2.4.1. Conceptualizing Hedonic and Eudaimonic Wellbeing

WB relates to how people feel and how they function, both on a personal level and in relation to other people. The two perspectives, the hedonic and the eudaimonic respectively, represent the two main streams of WB research. The hedonic approach conceptualizes and defines WB in terms of happiness, the presence of pleasure and absence of pain, and life satisfaction. This is frequently called subjective WB (SWB) (Bradburn, 1969; Diener, Larsen, Levine, & Emmons, 1985; Ryan & Deci, 2001; Kahneman, Diener, & Schwarz, 2003). The eudaimonic approach equates WB with human potential that, when realized, results in a person's optimal functioning in life (Diener, Emmons, Larsen, & Griffin, 1985; Ryan & Deci, 2001) and is reflected in the stream of research on psychological (Ryff, 1989) and social (Keyes, 1998) WB. This is called psychological WB (PWB).

To date, hedonic theories of WB have been the most extensively studied. Diener et al's., (1985) review of research on SWB culminated in a model composed of a person's cognitive and affective evaluations of life as a whole. Diener considers SWB (synonymous with hedonia) as the experience of high levels of pleasant emotions and moods, low levels of negative emotions and moods, and high life satisfaction (See Figure 6).

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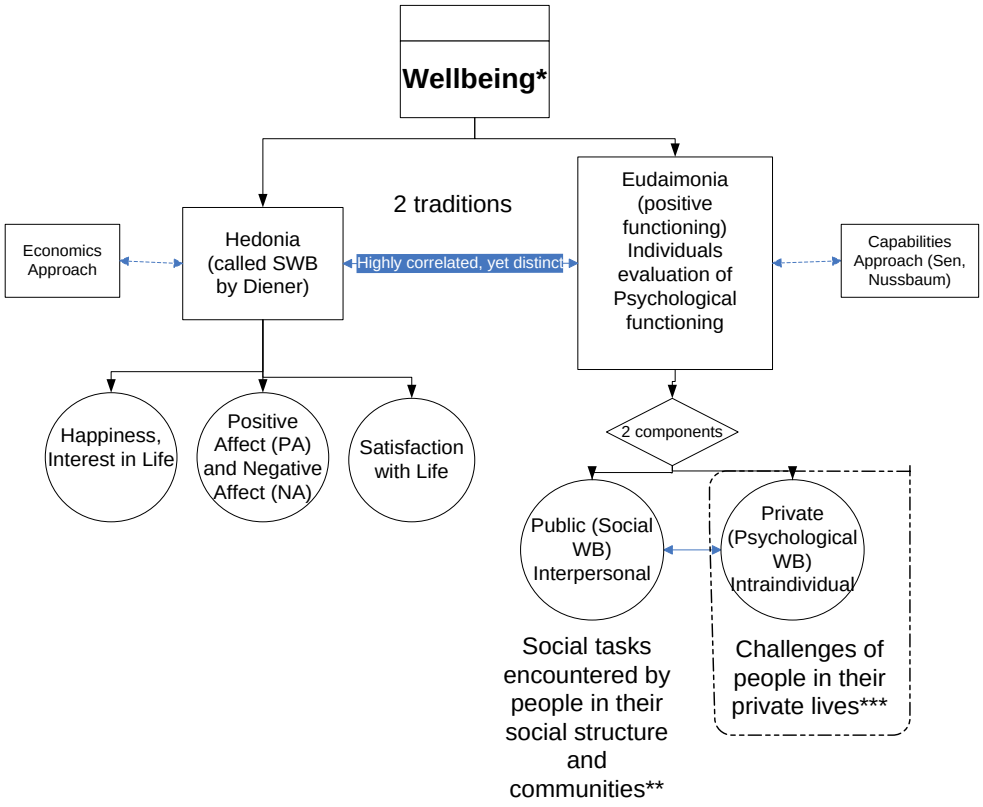
In the eudaimonic tradition (Waterman, 1993), conceptions of WB focus on the content of one's life and the processes involved in living well. Proponents consider resources (e.g., income, wealth, education) as the things or "tools" that people craft in their lives to reach their potential (Ryan & Deci, 2006). It is what people are able to do with the social, psychological, economic, and material resources available to them that counts. Concern is for agency or human action and the association to Nussbaum and Sen's (1993) human development approach is depicted in Figure 6. Nussbaum and Sen (1993) use a conception that is focused on functioning and capabilities. Capabilities (or bundled skills and abilities) are the ability to access valued life functions. Human action in the eudaimonic tradition refers to enabled and thriving people in society (Ryan & Deci, 2006). Given these broad understandings, eudaimonia includes "having", "doing", and "being" whereas hedonia includes "having' and "being". The characteristics of the two main conceptualizations of WB are summarized in Table 2.

Exemplifying the eudaimonic tradition, Ryff (1989) reviewed work from developmental, humanistic, and clinical psychology and presented a model of psychological WB (PWB) that is made up of six components: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (See Figure 6). This model of PWB pertains to eudaimonic characteristics and is built on the assumption that individuals strive to function fully and realize their unique talents. Taken together, the six dimensions of PWB encompass a positive sense of self, purpose and meaning in life, quality relations with others, the capacity to effectively manage one's life, and a sense of self-determination (Ryff & Keyes, 1995; Ryff & Singer, 2008). Keyes's (1998) model of social WB (Figure 6) extends the eudaimonic tradition of WB from the intrapersonal focus of Ryff's model (1989) to the interpersonal realm. This study is delimited to the intrapersonal focus of Ryff's (1989) PWB model.

Figure 6: Conceptualizations of Wellbeing



* Wellbeing as conceptualized here is called Subjective Wellbeing by Keyes (2006). It includes Hedonia and Eudaimonia.

Empirical Correlation

Theoretical Association

** Keyes, (2006): Relationships and functioning in society and social groups, social coherence, social actualization, social integration, social acceptance

Psychological Wellbeing (PWB)

***Ryff (1989), PWB: Self acceptance, purpose in life, personal growth, environmental mastery, autonomy, positive relations with others

Table 2: Characteristics of Eudaimonia (PWB) and Hedonia

Characteristic	Hedonia	Eudaimonia
Focus	*Outcome*-Satisfaction of desire or preference, pleasure	*Process*- Life activities and functions in which people engage (public and private, see **Figure 6**)
Concern	*Utility*- as satisfaction *Utility*- as desire fulfillment (economists)	*Agency*- capabilities or human development and approach (Nussbaum & Sen, 1993) *Human Action* – a society that enables its citizens to aspire to greatness and thrive, to develop virtues and loyalties, to become skilled and artistic, and to attain wisdom (Seligman, 1990, 1996)
Components	"*Having*" (satisfying desires) and "*being*" (feeling)	"*Having*", "*doing*", and "*being*"
Drivers	Needs based	Purposeful use of goods and resources
Indicators	Welfare, happiness, health, good fortune, state of being well and comfortable	Health, achievement of valued functioning (social and psychological). These are public "objective" values that are specified in general form (normative) rather than only by individual desire

Ryan et al. (2008) view the two traditions as being distinct because they have different targets rather than because they conceive of different types of WB. In other words, hedonia is considered the outcome of positive goal pursuits of a eudaimonic life and eudaimonia is enhanced by hedonia (i.e., feelings of satisfaction and happiness) (Ryan et al., 2008). In empirical studies hedonia and eudaimonia are identified as highly correlated yet distinct concepts (Kashdan, Biswas-Diener, & King, 2008). Many scholars (Gallagher, Lopez, & Preacher, 2009; Keyes, 2006) conceptualize SWB as encompassing both hedonia and eudaimonia (See Figure 6). In this view it is argued that both hedonic and eudaimonic WB reside in people's minds and belong to the thinking subject. In this study PWB is viewed as a subjective experience.

WB may be investigated at an individual or collective level, i.e., groups of shared interest or characteristics. In the collective study of WB, the social indicators movement describes WB as people's experience of their quality of life (QoL). In this view WB concepts and constructs are

important markers (or indicators) for QoL. The distinction to be made is that WB is a building block for QoL and represents one type of "yardstick" used to measure QoL whereas QoL is an indirect or general measure of WB (Costanza, Fisher, Ali, Beer & Bond, 2008). The social indicators movement developed in response to economists' exclusive use of economic theories. For example, economic growth as a measurement for WB is an indicator of a "good life" (Gasper, 2004). This perspective is associated with the hedonic stream of WB (see Figure 6) and is concerned with the outcome of WB, i.e., economic growth, rather than the means. Economists operationalize hedonia whereby "satisfaction of desires" is equated with "satisfaction" and is imputed from choice, e.g., it is presumed that choice leads to desire fulfilment and WB is reduced to choice (Angner, 2005, p. 16). Utility is not concerned with feeling states like happiness or pleasure but rather focuses on people's right to make their own mistakes and the hedonic understanding of WB is conflated with financial wellbeing.

The term welfare is also related to the hedonic understanding of WB (Angner, 2005; Gasper, 2004) and refers to health, happiness, good fortune, and a state of being well and comfortable (Gasper, 2004) (see Figure 6). The term economic welfare is equated with access to economic resources (Gasper, 2011). The concern is for utility (as relative satisfaction) and its fulfilment, (e.g., feeling satisfied) (Gasper, 2011). From this perspective, hedonia is needs based and a good society is one that provides maximum satisfaction or positive experience for its citizens. This represents the "having" dimension to hedonia. While it is plausible that some economic resources are necessary for a life of WB, according to Sen, such resources are not sufficient to constitute it (Sen, 1987).

WB is also identified as a key component in the World Health Organization (WHO) definition of health. The founding of the WHO in 1948 was accompanied by the broad and much cited definition of health that included physical, mental and social WB in addition to the absence of disease or infirmity (World Health Organization, 1948). This high profile use of WB aimed to re-conceptualize health and health care practice away from a singular focus on the individual and absence of specific

diseases towards seeing health as a positive attribute and more socially determined. Despite the early introduction of the term into the health field by the WHO, a major increase in its usage with respect to health has only occurred over the last 20 years, primarily in the domain of psycho-social health as pioneered by the positive psychology movement (Linley, Joseph, Harrington, & Wood, 2006; Linley & Joseph, 2004; Seligman, Steen, Park, & Peterson, 2005).

In sum, WB may refer to the physical, mental, social, and environmental and economic aspects of people's lives. Because of its positive nature, it is an integral component of the positive health and psychology movement (Kashdan et al., 2008).

2.2.4.2. Employee Wellbeing and the Workplace

Employee wellbeing (WB) is relevant to the workplace (Anderson, Serxner, & Gold, 2001; Browne, 2000; DeJoy & Wilson, 2003; Huselid, 1995); however, research on WB in this domain has been somewhat delimited. While the study of WB within psychology has been guided by comprehensive research based models (Diener et al., 1985; Keyes, Shmotkin & Ryff, 2002; Ryff, 1989), in the workplace research on WB has almost exclusively been focused on the measurement of employee job satisfaction which is a hedonic view. Page and Vella-Brodrick (2009) examine WB within the workplace from a broadened mental health perspective. To do so they use the guiding questions of "what", "why", and "how". Beginning with the "what" Page et al. (2009) propose a model of employee WB that consists of three core components. Specifically they argue that employee WB consists of SWB (life satisfaction plus dispositional affect), workplace WB (job satisfaction plus work related affect) and PWB (self-acceptance, positive relations with others, environmental mastery, autonomy, purpose in life, and personal growth). Although scales exist to measure several of these constructs, the current measurements of PWB, such as Ryff's (1989) PWB scale, have limitations. It is important to note that, to date, no comparable scale or construct exists that assesses positive psychological functioning (PWB) specific to the workplace. Although it would

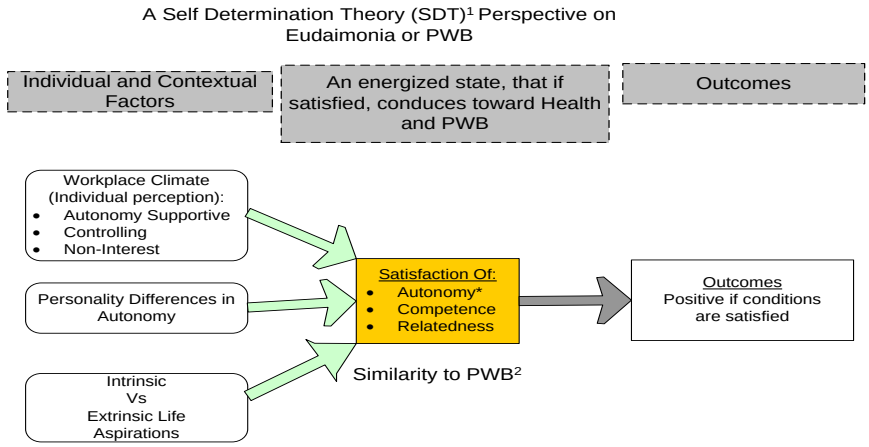
be useful to tailor Ryff's (1989) PWB scale to apply specifically to the workplace, substantial validation of the scale in future research is required (Abbott, Ploubidis, Huppert, Kuh, Wadsworth & Croudace, 2006) . Page et al. (2009) claim intuitively all the domains of PWB could plausibly be filled through work and propose that Ryff's (1989) PWB may be sensitive to changes in employee WB in the work domain. Diener et al. (2009) developed a short and valid measure of PWB that encompasses components of Ryff's (1989) and Ryan and Deci's (2000, 2001) scales that is suitable to be applied in the workplace. It provides a broad overview of a person's PWB and also includes several important aspects of WB that are not included in existing scales such as engagement (Csikszentmihalyi, 1990; Seligman, 2002) and optimism (Peterson and Seligman, 2004).

2.2.4.3. Psychological Wellbeing and Current Methodological Challenges

Since PWB has been theorized to play an important role in workplace outcomes it is important to know the current measures of PWB and their limitations. Investigations of the structure of PWB items are useful for advancing knowledge about what dimensions define PWB in practice. Ryff's (1989) PWB model is multidimensional and the questionnaire items are widely used but their latent structure and factorial validity have been challenged empirically. Abbott, Ploubidis, Huppert, Kuh, Wadsworth & Croudace (2006) provide a useful table summarizing the studies that have psychometrically tested Ryff's Scales of PWB (years - 1989, 1995, 2001, 2004, 2005, 2006). Abbott et al. (2006) conducted a confirmatory test of the factorial validity and structure of Ryff's PWB scales (42-item version) in the UK. The authors applied latent variable models for factor analysis of ordinal/categorical data to a 42-item version of Ryff's PWB scales administered to women aged 52 in a UK birth cohort study (n = 1,179). Construct (predictive) validity was examined against a measure of mental health recorded one year later. Inter-factor correlations among four of the first-order PWB constructs were sufficiently high (> 0.80) to warrant a parsimonious representation as a second-order general wellbeing dimension. Method factors for questions reflecting positive and

negative item content, orthogonal to the construct factors and assumed independent of each other, improved model fit by removing nuisance variance. PWB was found to be negatively associated with the negative dimensions of mental health (Abbott et al., 2006). Predictive validity correlations between PWB and a multidimensional measure of psychological distress were dominated by the contribution of environmental mastery, in keeping with earlier findings from cross-sectional studies that have correlated wellbeing and severity of depression. The authors conclude that the preferred model included a single second-order factor, loaded by four of the six first-order factors (environmental mastery, personal growth, purpose in life and self-acceptance [EGPS]), two method factors, and two more distinct first-order factors (autonomy and positive relations). This three (3) factor structure provided the most parsimonious solution in this birth cohort sample. Their finding that there are three (rather than six) distinct factors, that is, autonomy, positive relations, and mastery and growth/purpose and motivation/self-acceptance and self-direction (EGPS), is reminiscent of the Self Determination Theory (SDT) (Ryan & Deci, 2000) which postulates that wellbeing results from the fulfilment of three basic psychological needs (autonomy, relatedness and competence). Abbott et al. (2006) claim it could be argued that their second-order factor (EGPS) bears a resemblance to Ryan and Deci's (2000) concept of competence. However the authors make the distinction that while there is overlap between the autonomy concepts of Ryff (1989) and Ryan and Deci (2000), the latter focus on the core concept of personal control while Ryff's items include an element of not caring what others think (i.e., self-acceptance). Abbott et al.'s (2006) findings on the concept PWB is particularly useful for insights about the configuration of PWB and how to best measure it. Ryan et al. (2008) have conceptualized the dimensions of SDT (autonomy, competence, and relatedness) as viable measures of eudaimonia or PWB. See Figure 7 for a depiction of a SDT perspective on eudaimonia or PWB. The components of SDT and Ryff's PWB are shown to be nutriments of positive outcomes.

Figure 7: Eudaimonic Living: Self Determination Theory and PWB



* Not to be confused with independent, detached, and selfish, but rather the feeling of volition that can accompany any act.

**Ryff (1989)[2]
Dimensions of Psychological Wellbeing (PWB)

- Self-acceptance – the capacity to see and accept one's strengths and weaknesses
- Purpose in Life- having goals that give life meaning and direction
- Personal Growth-talents and potential are being realized over time
- Positive Relations with Others
- Environmental Mastery- manage demands of everyday life
- Autonomy-having the strength to follow personal convictions

[1] Ryan, R.M. and Deci, E.L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation and Well-Being. American Psychologist, 55(1), 68-78
[2] Ryff, C.D. (1989). Happiness is everything, or is it? Exploration of the meaning of Psychological Well-being. Person. Soc. Psychol. 57, 1509-1524.

Ryan and Deci's (2000) SDT has wide appeal because it focuses on types and amount of motivation, paying particular attention to autonomous motivation, controlled motivation, and amotivation as predictors of performance and outcomes. It also addresses the social conditions that enhance versus diminish these types of motivation, proposing and finding that the degrees to which basic psychological needs for autonomy, competence, and relatedness are supported versus thwarted affect both the type and strength of motivation. SDT also provides a framework to examine people's life goals or aspirations, showing differential relations of intrinsic versus extrinsic life goals to performance and psychological health. Ryan et al. (2008) highlight the applicability of SDT within applied domains, including work, relationships, parenting, education, virtual environments, sport, sustainability, health care, and psychotherapy. Recent developments within SDT (e.g., energy and

vitality, mindfulness, and applications such as wellbeing and health) provide support from a theoretical perspective to apply SDT to the study of wellbeing and organizational outcomes.

A study conducted by Burns and Machin (Burns & Machin, 2007) provides support for Page et al.'s (2009) recommendation to broaden the conceptualization of WB to include PWB within organizational research. Additionally, in line with Ryan and Deci's (2001) hypothesis, they claim PWB may determine employees' affective reactivity to external stressors. The importance of this for employers is that employee PWB could provide a barometer to changes in the institutional field and how employees are reacting to this change. This in turn may help employers mitigate such stressors and develop strategies (i.e., workplace programs) that focus on developing specific facets of employee PWB to prevent deleterious outcomes. Such strategies may instil longer lasting attitudinal changes in employees that engender feelings of vigour, develop feelings of environmental mastery, promote autonomy and competence, and lessen emotional reactivity to environmental triggers (Burns & Machin, 2007). Burns and Machin (2007) claim this would have a longer lasting effect than programs aimed at changing employees' affect.

In line with theories of eudaimonic living, several studies have shown positive relations between need satisfaction and optimal functioning, at interpersonal, intra-individual, and general levels (Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) as well as across different life-domains (Ryan et al., 2008). In the context of work, initial evidence was found for positive relations between a composite score of need satisfaction (i.e., aggregated across the three needs) and employees' work-related wellbeing (i.e., job satisfaction, work engagement, and lower burnout), favourable attitudes (i.e., decreased turnover intentions, increased readiness to change), and higher performance (Sheldon, Elliot, Kim, & Kasser, 2001). Furthermore, work-related need satisfaction has been related to increased general wellbeing and to less illbeing (Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). Finally, studies in which the three needs were examined separately showed that each of the three needs correlated

positively with employees' optimal functioning (Baard, Deci, & Ryan, 2004), which is consistent with SDT's claim that the satisfaction of each of the three basic needs contributes to individuals' flourishing (Ryan & Deci, 2000).

Thus, PWB represents optimal human functioning and is based on humanistic theories. There are several advocates of the desirability of these states including Ryff (1989), Seligman (2004), Czikszentmihalyi (1990), Maslow (1970), and Deci and Ryan (2000, 2001). Diener et al.'s (2009) brief but comprehensive PWB scale incorporates important dimensions from scales developed by Ryff (1989) and Deci and Ryan (2000, 2001) and other aspects of WB such as engagement and interest (Czikszentmihalyi, 1990) and optimism (Peterson and Seligman, 2004). Although good social relationships are typically defined as having the support of others, recently scholars have emphasized that humans also need to provide support to others. For example, Brown et al. (2003) found that helping others is more important to health than receiving help, and Dunn et al. (2008) found that people gain more from giving to others than from receiving from them. This dimension of PWB is also captured in Diener et al.'s (2009) PWB scale which is now called the *Flourishing Scale* (FS) (Diener et al., 2010). One drawback of this short scale is that it does not provide measures of the specific components of PWB but rather provides a comprehensive composite measure of the PWB concept.

2.2.4.4. Employee PWB and Organizational Outcomes

This section of the literature review focuses on previous findings on the role employee PWB may play in organizational outcomes and functioning. A selection of theoretical and empirical findings on the relational effects between employee workplace WB and organizational outcomes is reviewed. Since PWB has not been empirically studied for its impact on organizational outcomes, the following discussion infers its inclusion in the findings because of previous theorizing about high correlations between hedonia and eudaimonia (Kashdan, Biswas-Diener, & King, 2008) and the role PWB may

play in the workplace (Burns & Machin, 2007; Page et al., 2009). The organizational outcomes presenteeism and sickness absence are of particular interest in this section. The literature reveals that the presence of positive workplace WB is associated with higher employee productivity and lower rates of employee work absences (Grawitch, Gottschalk & Munz, 2006). This highlights the re-emergence and interest in the concept of the happy and productive worker hypothesis. Since working adults spend at least a third of their waking hours at work, this hypothesis underscores the importance of organizations to capitalize on a work force that is increasingly seeking greater purpose and growth through their work, and, as well, has increasing choice in where to work (Gagné & Deci, 2005).

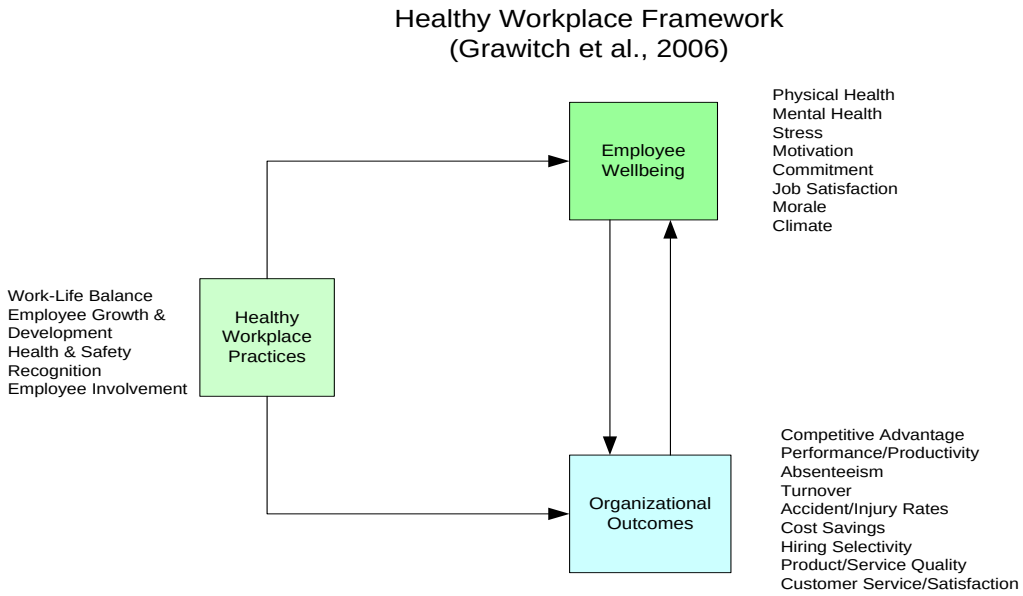
In general, the term workplace WB has been used to denote employee health and WB and positive outcomes within the organization. Health and wellness have predominantly been focused on medical and physical definitions since these are dominant ideologies (Browne, 2001). Although WB research to date has frequently been related to employees' health outcomes, the relationship it has to employees' work behaviours and organizational outcomes has gained interest. Workplace wellness initiatives to promote employee health in the workplace have been correlated to employees' work behaviours (i.e., turnover, performance, sickness absence, and presenteeism) (Goetzel & Ozminkowski, 2008) and organizational outcomes (i.e., return on investment, (ROI)) (Morrison & MacKinnon, 2008). Less studied and known is the role PWB plays in organizational outcomes. One central issue relevant to workplace wellness concerns the conceptualization of WB that is most relevant to promote optimal employee work behaviours and positive organizational outcomes. Accordingly, questions remain about the role PWB plays in employee and organizational functioning and how such knowledge may be applied to develop strategies to enhance these factors and improve employees' PWB in the workplace.

Evidence links the health of employees to sickness absence and productivity at work (O'Donnell, 2000) and positive affect to job satisfaction (Fisher & Ashkanasy, 2000) and to work performance

(Côté, 1999; Judge, Thoresen, Bono, & Patton, 2001). In a study conducted by Cooper (1994), results support the relationship between individual health factors and organizational health and suggest that approximately half of all absences are related to unhealthy work environments or stress. It has also been suggested that perceptions of job competence may enhance individual performance in the work setting (Markus, Cross, & Wurf, 1990). These findings highlight the need to consider a variety of employee factors, such as the mental, physical, and emotional health of individuals, when evaluating organizational outcomes, such as health care costs and sickness absence. Despite the evidence linking WB to key individual and organizational outcomes, little research has been directed towards empirically isolating and comparing factors related to PWB in the workplace.

A conceptual model on organizational and employee health developed by Grawitch et al. (2006) is presented in Figure 8. Browne (2000) argues that workplace practices are only effective if organizational outcomes are matched with the wellbeing of employees who are directly affected by these practices. Figure 8 depicts two paths that lead to organizational outcomes. The first is a direct pathway from workplace practices to organizational improvements. The second is an indirect path from workplace practices to organizational improvement outcomes, via employee WB. The model reflects the concept of a healthy workplace, building on the premise that organizations that foster employee health and WB are also profitable and competitive in the marketplace. The indirect path to organizational improvement outcomes recognizes that organizational practices when combined with employee WB can have a significant effect on employee commitment, satisfaction and health, which in turn, affect productivity and the effectiveness of the organization (Schmidt, Welch, & Wilson, 2000; Cooper & Williams, 1994). The literature about the influence of organizational practices and employee WB on organizational outcomes appears to support Grawitch et al.'s (2006) model in Figure 8.

Figure 8: Workplace Wellbeing Framework



A healthy workplace, as defined by Sauter, Lim, and Murphy (1996), is any organization that "maximizes the integration of worker goals for WB and company objectives for profitability and productivity" (p. 250). Embedded in this definition are the performance of the organization and the health and WB of the employees (Jaffe, 1995). According to Schmidt et al. (2000), Sauter et al's (1996) definition of a healthy workplace has two assumptions. The first assumption is that it is possible to identify the key characteristics of a healthy workplace based on a set of job and organizational factors. The second assumption is that the establishment of a healthy workplace leads to a healthier and more productive workforce, which translates into increased productivity and a competitive advantage for the organization (Grawitch et al., 2006).

With regards to the second assumption, several healthy workplace practices have been linked to factors related to employee WB and organizational outcomes. An overview of the research findings that support this thesis are briefly visited here and are depicted in Figure 8. Higgins, Duxbury, and Irving (1992) found that conflict between work and family roles, i.e., long work hours, diminishes employees' perceptions of quality of both work and family life which, in turn, influences organizational outcomes such as productivity, absenteeism, and turnover. Training programs can

foster personal and professional growth in knowledge, skills, and experiences and can act as a motivator for employees, leading to positive gains for an organization (Pfeffer, 1994) and predicting organizational effectiveness (Browne, 2000). Employee growth and development programs are a source of competitive advantage that differentiates one organization from another (Pfeffer, 1994; Rosen & Berger, 1991). A literature review conducted by Aldana (2001) on the relationship between health risk factors and organizational productivity shows that increased health care expenditures and illness-related absence were related to employees' high levels of stress, excessive body weight, and the existence of multiple risk factors. Organizational support in the form of frequent communication, employee autonomy on the job, training and development, and stress management programs can be beneficial for employees and the organization. For example, stress management programs benefit the organization because they have been shown to increase productivity and decrease absenteeism (Munz & Kohler, 1997; Munz, Kohler, & Greenberg, 2001). Organizations that demonstrate commitment to their employees may benefit from reciprocal commitment from their employees (Browne, 2000). Employee involvement has been related to organizational improvement variables, such as decreases in turnover and absenteeism and increases in work quality (Lawler, 1991; Vandenberg, Richardson, & Eastman, 1999). According to Freeman and Rogers (2006), previous research suggests that employee involvement programs yield a 2% to 5% increase in productivity. Thus employee involvement programs produce positive consequences for organizational effectiveness.

The unified model proposed in Figure 8 shows how specific organizational outcomes can result from healthy employees and organizations. There are several ways that organizational practices and employee WB can improve the organization. Improvements may include: increases in competitive advantage, performance, productivity, hiring selectivity, and customer satisfaction, and decreases in sickness absence, absenteeism, turnover, injury/accident rates, and health care costs (Anderson, Serxner, & Gold, 2001; Browne, 2000; DeJoy & Wilson, 2003; Huselid, 1995).

Research findings clearly demonstrate that it is advantageous for organizations to consider employee and organizational functioning given the relationships that exist between them. Despite the gaps in the research, when cobbled together, the findings do serve to strengthen the general proposition that employee's PWB and their perceptions and judgements about changing organizational practices will influence organizational outcomes.

2.2.5. Organizational Outcomes: Sickness Absence and Presenteeism

The following literature review on the organizational outcomes sickness absence and presenteeism begins with a general discussion about these two highly correlated but distinct concepts (Johns, 2010). First, their definitions are reviewed to prevent any ambiguities in understanding these two concepts. Following this the variables related to sickness absence and presenteeism will be discussed and a theoretical conceptual model developed by Johns (2010) about the precipitating factors, dynamics, and behavioural outcomes is presented. Empirical findings to support the model are reviewed and the theoretical implications of study results are discussed.

In Chapter 1 sickness absence is defined as non-attendance (as from work or school) due to an illness or injury and also includes the rate of such absence (Schaufeli et al., 2009). It is an important workplace outcome that represents employer costs (Kessler, Ames, Hymel, Loeppke, McKenas, Richling, . . ., Ustun, 2004), productivity loss (Nebenzahl, 2004) and employee illbeing (Diener, 2006; Ryff et al., 2006). Presenteeism refers to attending work despite feeling unhealthy (Aronsson et al., 2000; Dew et al., 2005). Presenteeism is also an important workplace outcome that represents employer costs (Kessler et al., 2004) and employee illbeing due to associated reductions in work productivity (Nebenzahl, 2004) and the potential to aggravate illness when attending work while ill (Johns, 2010). As with sickness absence, it is argued that presenteeism has important implications for organizational theory and practice (Johns, 2010).

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Sickness absence and presenteeism have been studied in the fields of economics, management and human resource management (HRM) (Dew et al., 2005). Work absence has long interested researchers due to its costs to organizations and its status as an indicator of work adjustment (Johns, 2010). Theory and research distinguish between two forms of work absence. Voluntary (or unwarranted, uncertified, unauthorized, illegitimate, unexcused) absences are a function of the worker's motivation to attend. Such absences are often called absenteeism (Johns, 2010). They are caused by a combination of individual characteristics, job situation factors, and environmental events, which in turn determine the relative utility of absence or presence at work to the worker (Darr & Johns, 2008; Harrison & Martocchio, 1998; Johns, 2009). Involuntary (or warranted, certified) absence results from the inability rather than the unwillingness to attend work (Steers & Rhodes, 1978). Bierla, Huver, and Richard (2013) maintain that one of the methodological challenges to studying work absence is often linked to lack of available direct data to differentiate these two forms, i.e., warranted absence and unwarranted absence. Since most of the data are sourced from self-reports it is likely that most employees claim “sickness absence” as the reason for their absence regardless of whether it is warranted or not. Since the term absenteeism has many confounding elements, in this study the outcome of interest is sickness absence.

Presenteeism is a more recent subject of interest that offers promising theoretical advances in the study of work behaviours (Bierla, et al., 2013). It has the capacity to contribute to the literature on sickness absence by addressing the gray area that exists between no productivity (i.e., sickness absence) and full work engagement. Questions about how absence episodes begin and how decisions to return to work are initiated are ripe for further study. From a health viewpoint, the study of presenteeism provides a mechanism for analyzing the important connections among having a medical condition, defining oneself as ill, and engaging in work behaviours associated with assuming a sick role (Levine & Kozloff, 1978). Such research is constrained by the confusion about the definition of presenteeism found in the literature. Most recently it is conceptualized as a person

showing up for work when ill. Although not exhaustive, in Table 3, Johns (2010) provides nine definitions of presenteeism that are found in the literature. All of the definitions pertain to being physically present at work, however, they operationally differ from each other which can be problematic for reliability and validity across studies. Presenteeism may be defined as good (definitions 1 and 2), marginally obsessive (definitions 3, 4, and 5), counter to one's health status (definitions 5, 6, and 7), and indicate a less than productive output (definitions 8 and 9).

Table 3: Definitions of Presenteeism

1. Attending work, as opposed to being absent (Smith, 1970)
2. Exhibiting excellent attendance (Canfield & Soash, 1955)
3. Working elevated hours, thus putting in "face time", even when unfit (Simpson, 1998; Worrall, Cooper, & Campbell-Jamison, 2000)
4. Being reluctant to work part time rather than full time (Sheridan, 2004)
5. Being unhealthy but exhibiting no sickness absence (Kivimaki, Head, Ferrie, Hemingway, Shipley, Vahtera & Marmot, 2005)
6. Going to work despite feeling unhealthy (Aronsson et al., 2000; Dew et al., 2005)
7. Going to work despite feeling unhealthy or experiencing other events that might normally compel absence (e.g., child care problems) (Evans, 2004; Johansson & Lundberg, 2004)
8. Reduced productivity at work due to health problems (Turpin, Ozminkowski, Sharda, Collins, Berger, Billotti, . . . Nicholson, 2004)
9. Reduced productivity at work due to health problems or other events that distract one from full productivity (e.g., office politics) (Hummer, Sherman, & Quinn, 2002; Whitehouse, 2005)

Sourced from: Johns (2010), Presenteeism in the Workplace

Because of this variance many of these definitions lack scientific utility. For example, definitions 1 (presenteeism is the opposite of sickness absence) and 2 (presenteeism equals excellent attendance) are redundant. The first definition denotes the antonym of absence and the second denotes low sickness absence. In general, inferring presenteeism from lower absence fails to account for the reason for the absence and provides no explanation for presenteeism itself (Virtanen, Kivimäki, Elovainio, Vahtera, & Cooper, 2001). Of similar concern, definitions 7 and 9 extend definitions 6 and 8 by proposing that presenteeism involves attendance and associated productivity reductions due to ill health as well as other factors (e.g., child care demands, office politics). This definition seepage

beyond ill health lacks defined boundaries, can be unnecessarily complex, and is not helpful when conceptualizing or operationalizing presenteeism.

The definition that will be used in this study is the one offered by Aronsson, Gustafsson, and Dallner (2000), that is, attending work while ill (#6 in Table 3). The choice is based on the fact the definition does not ascribe motives to presenteeism. For example, although motives remain an empirical question, a worker could plausibly show up at work ill due to love of the job, or feelings of moral obligation, or job insecurity (Johns & Nicholson, 1982). Additionally, the literature provides fundamental construct validity evidence for measures based on this definition, i.e., they exhibit valid relationships with logical correlates (Aronsson & Gustafsson, 2005; Aronsson et al., 2000; Caverley, Cunningham, & MacGregor, 2007; Demerouti, Le Blanc, Bakker, Schaufeli, & Hox, 2009; Hansen & Andersen, 2008; Munir, Yarker, Haslam, Long, Leka, Griffiths & Cox, 2007; Sanderson, Tilse, Nicholson, Oldenburg, & Graves, 2007). Lastly, the definition does not ascribe consequences to presenteeism.

Beyond the definition parameters of presenteeism, the motives (or precursors to the act of presenteeism) and consequences for employee productivity have been a concern of organizational scholars and health scholars respectively. To better understand the concept of presenteeism it is important to explore these bodies of scholarship. For example, the consequence of productivity loss implies productivity levels compared in a baseline condition (one without the medical condition) and an existing medical condition (e.g., allergy, migraine, etc.). This could further be compared to a worker who is exhibiting sickness absence. A worker who is exhibiting presenteeism might be relatively (or even fully) productive in comparison to a worker exhibiting sickness absence. The variability in the act of presenteeism leads to questions about how diverse motives might underpin variable and unequal degrees of productivity loss by people with identical medical conditions. Definitions such as #8 in Table 3 indicate that scholars interested in productivity loss often label this loss as presenteeism and conflate meanings. This conflation implies that presenteeism is a negative

event from the organization's perspective, even though productivity may not be particularly problematic and it is likely an improvement when compared to productivity measures for sickness absence if days reported are equal. Thus, as with most outcomes, definitions are important, but the causes and consequences are to be separated, established, and supported by empirical evidence.

From an employee perspective, presenteeism is important because when a worker attends work when ill, existing medical conditions may be aggravated and worsen, the quality of work life may decline, and perceptions of work productivity, by self and others, may result in an overall impression of ineffectiveness at work (Johns, 2010). Further, many organizational practices and policies that are designed to curtail sickness absence could in fact stimulate attendance while sick (Johns, 2010). Conversely, under some circumstances, presenteeism might be viewed positively as an act of organizational commitment and citizenship. Johns (2010) contends that to focus on productivity loss as opposed to productivity gain compared to sickness absence may be unnecessarily restrictive.

However, much of the study of presenteeism has been fuelled by claims that working while ill causes more productivity loss than sickness absence (Nebenzahl, 2004) and by the idea that effective management of presenteeism may present an opportunity to gain a competitive advantage (Hemp, 2004). Organizationally, Hemp (2004) postulates that the invisible nature of presenteeism compared to absence makes its management an important source of organizational success considering its high cost, i.e., an estimated $150 billion cost in the US. A study by Goetzel, Long, Ozminkowski, Hawkins, Wang & Lynch (2004) provided empirical support for the hidden costs of presenteeism by associating it with decreased job productivity and its association with high financial losses to organizations. Thus, there is an "iceberg effect" in which the more visible portion of work loss (sickness absence) is quite small in comparison to the portion beneath the surface (presenteeism). There is considerable agreement across studies that presenteeism accounts for more aggregate productivity loss than sickness absence (Nebenzahl, 2004). A critical analysis of the literature might reflect the fact that there are more organizational constraints on not showing up than there are on

taking it easy on the job therefore presenteeism, and its associated productivity loss, may well exceed sickness absence and its associated productivity loss (Johns, 1994; Van Goor & Verhage, 1999). One challenge is that the self-report estimations of productivity loss may be prone to more distortion than counting of days absent which people frequently underreport (Johns, 1991). Another problem occurs when research findings are used as a reason or justification to be absent when sick, i.e., the fact that presenteeism causes more productivity loss than sickness absence becomes a reason to be absent (Nebenzahl, 2004). This deduction confuses aggregate findings with individual behaviour.

Similarly, the costs and organizational problems resulting from increased work absences are strong incentives for organizations to be concerned about their policies concerning sickness absence (Bierla et al., 2013). Sagie (1998) found that voluntary (or unwarranted) as opposed to involuntary (or warranted) work absence can be predicted by organizational commitment, job satisfaction, and their interactive effect. In a study on involuntary absence from work, Luz and Green (1997) identified that group cohesiveness, job satisfaction and a lack of external demand in market conditions lessen absence from work. Interestingly, these factors can also promote presenteeism. Daykin (1999, p. 2) claims that "the moral evaluation of sick employees by peers and superiors depends not only upon the biological reality of illness but on pre-existing attitudes and patterns of power and control". Consistent with this, Bellaby (1999) found that particular issues can act as a barrier to work absence including attitudes of managers and fellow workers, heavy workload and no substitute or replacement workers.

Presenteeism is positively related to job stress and burnout (Caverley et al., 2007; Demerouti et al., 2009; Koopman, Pelletier, Murray, Sharda, Berger, Turpin, …, Bendel, 2002) and is a reliable correlate of depression and migraine (Johns, 2010). A meta-analysis conducted by Darr and Johns (2008) revealed a modest negative correlation between work stress (specifically, strain) and absence. This may be due to the fact that stress is not viewed as a legitimate reason to be absent (Johns & Xie,

1998). It can be concluded that the experience of job strain raises presenteeism behaviour which results is stressed presentees in the workplace. Thus, where absence from work is blocked and relief from stress or illness is not forthcoming, Bellaby (1999) claims illness will be aggravated and exacerbated which further feeds into a progressive sickness absence cycle. In sum, work conditions, employee's job satisfaction, relationships with co-workers and supervisors, the degree of bond or loyalty to an organization, ease of work substitution, and external market demand are all related to sickness absence and presenteesim.

To better understand sickness absence and presenteeism and differentiate the positive and negative states of each, Chatterji and Tilley (2002) interpret absence/presence behaviour in relation to health. Using this foundation, Bierla et al. (2013) distinguishes between presence (going to work not being sick) and presenteeism (attending while sick), and also proposes to differentiate between sickness absence (leave when sick) and absenteeism (leave when healthy). This implies that "sickness absence" is an event allowing employees to recover from health problems, whereas "absenteeism" only occurs when absence becomes unwarranted, especially when an employee voluntarily stays at home for reasons unrelated to health. Whitston and Edwards (1990) and Bierla et al. (2013) believe that the distinction between "sickness absence" and "absenteeism" is important and neglected. They highlight that, even if the number of sickness absences is high, this does not imply a problem with absenteeism. Thus, according to Bierla et al. (2013) absenteeism is a term used to differentiate an absence that is without good cause and is consistent with Nielsen's (Nielsen, 2008) voluntary (or unwarranted, uncertified) absence.

The fact that absenteeism and sickness absence are not distinguishable a priori to the occurrence adds to their methodical challenges (Bierla et al., 2013). Managers and organizations aren't able to identify whether a worker is absent due to illness or shirking duties. Although not conclusive, a posteriori analysis can allow managers to deduce such a distinction (Bierla et al., 2013). For example, if younger employees are found to be more absent than older ones, absenteeism should be

suspected. Personal variables such as age will be discussed more fully in the next section on explanatory variables, however, age is often a cause of the lengthening of absence (i.e., increased duration) due to health deterioration (Nielsen, 2008). Therefore, younger employees should have lower sickness absence levels. Thus, sickness absence can be inferred from an absence level analysis and from the nature of the variables involved (Brown & Sessions, 2004).

Hansen and Andersen (2008) emphasize the link between sickness absence and presenteeism behaviours, arguing that they are different results of the same decision making process. From an employer point of view, organizations have an interest in making reasonable and balanced decisions so that employees do not shirk their duties (i.e., organizations reduce absenteeism), and employees take some days off when needed (sickness absence), to avoid presenteeism (Aronsson & Gustafsson, 2005; Hansen & Andersen, 2008; Johns, 2009). In this way sickness absence and presenteeism are viewed as two sides to the same coin therefore studying them together would be beneficial. Both behaviours have the potential to inform each other.

Aronsson and Gustafsson (2005) and Johns (2009) identify two categories of factors, work and personal, that can be used to explain decisions of attendance. Bierla et al. (2013) empirically explored nine different variables, five linked to work factors and four linked to personal factors. These are depicted in Figure 9. In addition to the variables discussed above, two other work related variables and two personal related variables relevant to this proposed research are discussed below.

2.2.5.1. Work Related Variables

Hansen and Andersen (2008) claim that job feature variables play a significant role in the decision to attend work while sick. The first work variable discussed here is the cost of absence. Work absence may be costly for employees if their workplace has limited absence policies and support. Frick and Malo (2008) identify macro level findings that suggest if a country has a good sickness benefit system it experiences more individual sickness absence in its workplaces. At an

individual employee level, Barmby, Ercolani, & Treble (2002) show that when the financial cost of absence increases, i.e., all sick time is used up, the probability of being absent significantly decreases. This could then be classed as presenteeism behaviour. Aronsson and Gustafsson (2005, p. 964) highlight that: "people with financial problems … show an obviously elevated risk of sickness presenteeism". Financial issues are shown to be important factors in the attendance decision process. A study by Bierla et al. (2013) supports that when the cost of absence for employees rises, sickness absence decreases and presenteeism increases.

The second work related variable that merits discussion here is associated with interest in the job. Interest in the job is a feature most often found in employees working in higher level jobs and can be deduced from job type (Caverley et al., 2007). Punnett, Greenidge and Ramsey (2007) found that an increase in job satisfaction leads to a reduction in the level of sickness absence. This was so for intrinsic satisfaction (i.e., responsibility, interesting tasks, and flexible hours) and extrinsic satisfaction (relationship with colleagues, job security). Hausknecht, Hiller and Vance (2008) found job challenge, independent thought and action, recognition, organizational commitment, and job satisfaction also lead to a reduction in the level of sickness absence. Conversely, these variables are also associated with more presenteeism and lead to over-commitment at the expense of health and other life domains (Caverley et al. 2007). Hansen and Andersen (2008) claim that a higher job level is one of the most important factors of presenteeism. Based on this, it has been surmised that employees having a higher degree of control in their daily tasks and work organization would be more likely to be at work while sick. Because employees occupying higher job levels often have this degree of work autonomy, Bierla et al. (2013) propose that using job level may be a suitable proxy to test presenteeism quantitatively. They postulate a link between presenteeism, sickness absence, and hierarchical level: as hierarchical level rises, sickness absence decreases and presenteeism increases.

2.2.5.2. Personally related variables

Most studies on sickness absence and presenteeism claim they are gender dependent which is the first personal variable discussed here. Dionne and Dostie (2007) found that the rate of absence, in general, is higher for women than for men and this is a recurring outcome in the literature. They report that female employees are about 30% more absent than their male counterparts. In earlier studies, Barmby et al. (2002) also obtained a higher duration of absence for women. In a study conducted by Burton, Lee & Holtom (2002) women were found to be more prone to migraine and depression which are among the health conditions strongly associated with both sickness absence and presenteeism. Additionally this study and another conducted in 2005 identified women as more susceptible to both work behaviours than their male counterparts (Burton, Chen, Conti, Schultz, Pransky & Edington, 2005). At the unit or department level, Kristensen, Jørn, Eskildsen, Nielsen, Frederiksen & Bisgaard (2006) showed that sickness absence decreases when the proportion of men in a work unit increases. Social roles and women's higher attention to their own health are often the explanations given for the difference between men and women (Nielsen, 2008). Study results for the relationship of presenteeism and gender is sparser and less clear. Two separate studies, conducted by Aronsson et al., one in 2000 (Aronsson et al., 2000) and the other five years later (Aronsson & Gustafsson 2005), using a similar study group (labour market survey of Sweden) reported different results (Bockerman & Laukkanen, 2010). In the earlier study women were found to attend work while sick more frequently than men, but in the later study, the gender variable was no longer significant. Additionally, Aronsson and Gustafsson (2005) found that women were overrepresented in occupations that typically report very high presenteeism. In contrast, Voss, Floderus, and Diderichsen (2004) found self-reported presenteeism in 37 per cent of women versus 56 per cent of men. Using the WLQ (Workplace Limitations Questionnaire), Burton, Pransky, Conti, Chen & Edington (2004) reported more productivity deficits for women on all sub-scales. Bramley, Lerner, and Sarnes (2002) presented data claiming women were more inclined to miss hours at work due to

absence and men due to presenteeism when suffering from common colds. Boles, Pelletier & Lynch (2004) found that women suffered considerably more productivity loss due to both absence and presence than men. Findings across these studies are mixed. The general evidence suggests women are more inclined to sickness absence behaviour and men are more prone to presenteeism behaviour; however this is not conclusive. Although the literature consistently reports a link with gender, the different results indicate a need for deeper and more thorough analysis of the role gender plays in both behaviours while accounting for their interactive effects.

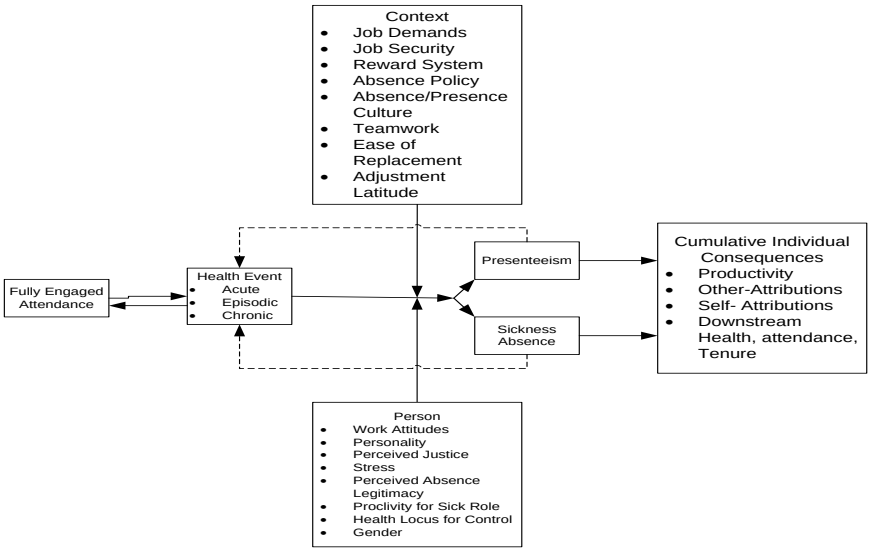
With regards to age, another personal variable relevant to this study, the literature is divided on the relationship it has to sickness absence and presenteeism. Concerning absence, Nielsen (2008) identifies two competing hypotheses: there is an increase in absence with age, and; there is a decrease in absence with age. The former seems to be intuitively logical because of the expected deterioration in health status as people age. Nevertheless, Bockerman and Laukkanen (2010) found that older employees (more than 50 years old) are less absent than others. They also found that age had no effect on presenteeism. At a unit level using average age, Nielsen (2008) and Kristensen et al., (2006) obtained the same effect as Bockerman and Laukkanen (2010). However, these studies analyze absence in terms of frequency, that is, the number of absence periods. When considering the duration of absence (i.e., number of days), the effect is the opposite. Frick and Malo (2008) claim that older employees are more likely to take longer sick leave. Because previous studies support that sickness absence is age dependent it is expected that presenteeism is also age dependent given the correlation of these two concepts. However, there is still little evidence that age could be associated with presenteeism since most of the estimations in studies integrate age as a control variable without giving further interpretations of the results (Hansen & Andersen 2008). Further exploration of these links is indicated.

2.2.5.3. Theoretical Implications

Research and analysis concerning sickness absence and presenteeism as integrated yet separate concepts have lacked theoretical grounding. In part this stems from the definition confusion of the terms sickness absence, absenteeism, presence, and presenteeism and the resulting methodological inconsistencies as discussed earlier. Most health-related research on sickness absence and presenteeism has been based on the impact of self-reported illness and self-reported productivity and results have often been contradictory. Despite these challenges, the literature suggests some key variables that might be incorporated into a theory about sickness absence and presenteeism. A model presented by Johns (2010) in Figure 9 provides a visual depiction of what is currently known about the relationships and mechanisms operating in sickness absence and presenteeism behaviour. For the purposes of this study the model has been adapted whereby "sickness absence" replaces the term "absenteeism" because the precursor to the behaviour is a health event. Absenteeism may or may not be related to health. Based on the paths depicted in Figure 9, theorizing about sickness absence and presenteeism would incorporate the interactions among a medical or health condition, work conditions, attitudes and experiences (Johns, 2010). The model assumes that fully productive regular attendance is interrupted by a health event that is either acute (e.g., the flu), episodic (e.g., migraine), or chronic (e.g., the onset of diabetes). Initially, to some degree, the nature of the health event will dictate whether sickness absence or presenteeism occurs. For example, acute stomach flu is likely to lead to absence and the diagnosis of diabetes is likely to lead to presence (Johns, 2010). In less severe medical cases, context will come into play. Nicholson (1977) presented a theory concerning sickness absence that attempts to specify where particular incidents might be indicated on a continuum of avoidability and withdrawal. Cross-sectional research does show a negative relationship between employee performance and sickness absence, which is consistent with the progression of work withdrawal (Bycio, 1992). Avoidability is the combined effect of the precipitating illness, and the context surrounding the event. Thus, a sore throat will likely stimulate

sickness absence for an instructor required to speak and teach and, alternately, result in presenteeism for an administrator who can plan to work in relative solitude. Contextual constraints related to an interaction between the individual experiences (i.e., the type of illness) and the situation or context (i.e., the type of job) (Johns, 1991) are instrumental in the choices made for sickness absence and presenteeism. The research on work context tentatively supports that job insecurity, strict attendance policies, teamwork, dependent clients, a positive attendance culture, and adjustment latitude in the job tend to favour the occurrence of presenteeism, while easy replacement and a good sickness benefit system favours sickness absence (Sagie, 1998; Daykin, 1999; Bellaby, 1999; Bierla et al., 2013).

Figure 9: A Dynamic Model of Sickness Absence and Presenteeism (adapted)



A Dynamic Model Of Sickness Absence and Presenteeism (Johns, 2010)

In addition to contextual factors, personal factors also play a role in the behavioural choice between sickness absence and presenteeism. Although personal factors have not been heavily researched, studies have implicated workplace injustice and social disorganization as predictors of absence (Johns, 2008, 2009). When considering the implications of these predictors for presenteeism a plausible hypothesis is that those experiencing more injustice are less likely to exhibit the act of

presenteeism but more likely to exhibit productivity loss when they do so. Some of the highest absence rates stem from the antecedents low cohesion and poor consensus (Johns, 2010). Thus, poor social integration is highly unlikely to stimulate attendance when ill. Although not shown explicitly in Figure 9, some non-medical personal variables noted earlier (i.e., age) might also affect the productivity of those enacting presenteeism. Existing evidence suggests that the impact of job demands on the choice between sickness absence and presenteeism might be moderated by job control, autonomy, or provisions for substitutes (Johns, 2011). It seems reasonable to expect that those with positive work attitudes and justice perceptions would most often exhibit presenteeism. Workaholics, i.e. a person who works compulsively (Merriam-Webster Dictionary, 2006), the conscientious, and the psychologically hardy would also tend to promote presenteeism (Johns, 2010). On the other hand, sickness absence might result when individuals are stressed over time, have an external health locus of control, have a tendency to adopt a sick role (Levine & Kozloff, 1978), and have the perception that sickness absence is a legitimate behaviour (Johns, 2010).

Sickness absence and presenteeism may be viewed as discrete events occurring in a sequence over time such that the occurrence of one behaviour might affect the likelihood of the other (Hackett Bycio & Guion, 1989; Hackett & Bycio, 1996). The dotted lines in Figure 9 show the potential impact of enacting presenteeism or sickness absence on the precipitating health event and subsequent attendance behaviour. For example, a couple of days of absence might lead to full recovery from the health problem and subsequent fully engaged attendance. On the other hand, several days of presenteeism might aggravate the health event and lead to sickness absence. Although both attendance behaviours might have some immediate consequences (e.g., harsh co-worker reaction to a colleague going to work with the flu), Figure 9 focuses more on the cumulative consequences to the individual following chronic or episodic health events.

Figure 9 also highlights the cumulative importance of explanations of the causes of sickness absence and presenteeism, both by actors and by observers (i.e., employees, managers, and co-

workers). Repeated acts of sickness absence or presenteeism do signal something about the person. The perceived legitimacy of both behaviours by co-workers and managers would figure prominently in the resultant behaviour. Despite illness being one of the most legitimate reasons for absence (Johns & Xie, 1998) there is much evidence that repeated or lengthy sickness absence may be viewed as a weakness or mildly deviant behaviour which can contribute to its under-reporting (Johns, 1994). Also, there are distinctions made about the legitimacy of various health conditions (Harvey & Nicholson, 1999), i.e., stress and depression are not seen as legitimate. The legitimacy of presenteeism is less clear. On one hand, showing up at work in the face of discomfort might be viewed as an example of organizational commitment and loyalty (Organ, 1988). On the other hand, research often suggests that people generally dislike admitting to lowered productivity (Johns, 1999) which might accompany the act of presenteeism. However, reporting one's productivity level in the context of a "good" medical reason provides for a degree of legitimacy. Finally, Figure 9 suggests that chronic sickness absence or presenteeism might have subsequent effects on downstream health status, attendance dynamics, and organizational membership. For example, in a health related situation, chronic presenteeism will likely aggravate a person's health, increasingly lower productivity, and result in sickness absence and possibly disability, and eventual withdrawal from work (Johns, 2010).

Based on their definitions, sickness absence and presenteeism would recognize the subjectivity of health, that is, the essential subjectivity of people's evaluation of their own health status (Fleten, Johnsen, & Førde, 2004; Kaplan & Baron-Epel, 2003). Studies about sickness absence and presenteeism would accommodate established individual differences in the tendency for self-disclosure of chronic illness at work (Munir, Leka, & Griffiths, 2005), perceptions of how work affects health (Ettner & Grzywacz, 2001), and the inclination to adopt a sick role (Levine & Kozloff, 1978).

2.2.6. Propositions 1 and 2

Proposition 1: Individual institutional legitimacy judgements will be negatively correlated to sickness absence (path a, Research Model, Figure 1).

Proposition 2: Individual institutional legitimacy judgements will be positively correlated with presenteeism (path a, Research Model, Figure 1).

In essence, this means that it will be possible to infer an organizational level of employee sickness absence and presenteeism by knowing an employee's institutional legitimacy judgements, as summarized in Table 4.

Table 4: Propositions 1 and 2

Propositions 1&2	**Sickness Absence Correlation**	**Presenteeism Correlation**
Individual Institutional Legitimacy Judgements	-ve	+ve

2.2.7. *Propositions 3 and 4*

Proposition 3: Employee PWB will be negatively correlated to sickness absence (path b, Research Model, Figure 1).

Proposition 4: Employee PWB will be negatively correlated to presenteeism (path b, Research Model, Figure 1).

These are summarized in Table 5.

Table 5: Proposition 3 and 4

Proposition 3 & 4	Sickness Absence Correlation	Presenteeism Correlation
PWB	-ve	-ve

2.3. Sub-problem - The Combined Effect of Institutional Legitimacy Judgements and PWB on Organizational Outcomes

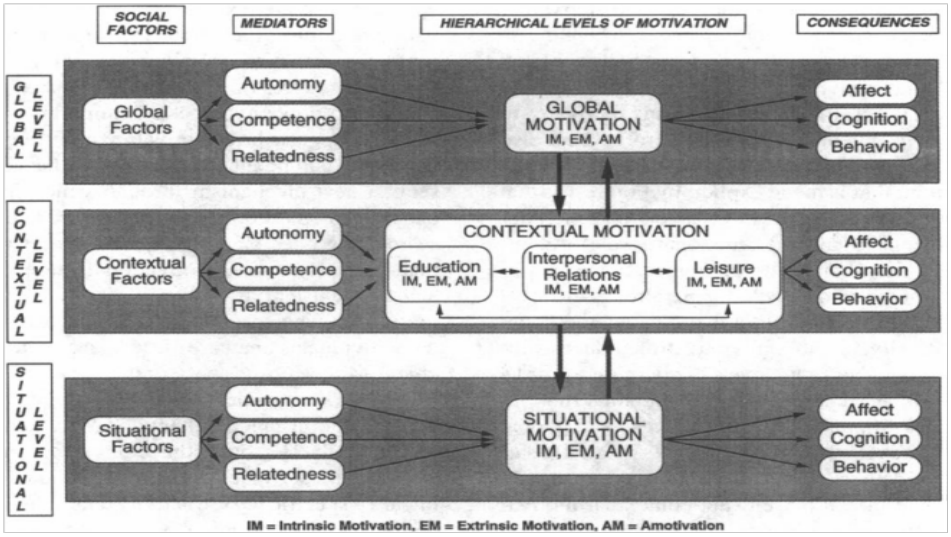
Curiously, amidst similar changing institutional and organizational conditions, some employees are able to flourish and maintain positive work behaviours, while others find themselves less able to satisfy universal nutriments within the work setting and their work behaviours languish (Goetzel et al., 2003). The mechanisms influencing the divergence in outcomes is not well understood, i.e., under the same institutional and organizational conditions some employees attend work regularly and maintain high levels of production, while others do not. In essence, PWB varies considerably among employees, as does personal propensity to be resilient under changing conditions. To hypothesize that enhancing employee PWB as a key ingredient for positive work behaviour and organizational outcomes has yet to be explored. The sub-problem is that the interaction effect of employee PWB and institutional legitimacy judgements on organizational outcomes, specifically sickness absence and presenteeism, is not known. This is due to a number of gaps found in the research literature on these concepts. First, as mentioned earlier, there is no empirical research on individual institutional legitimacy judgements because, although the concept has been theorized, no instrument has been designed to gather this data. Second, the question remains whether institutional changes and employees' reactions to these changes are influential in the organizational outcomes sickness absence and presenteeism. Third, although, WB has theoretical and empirical connections to organizational outcomes, the research in this area has largely been limited to job satisfaction and

hedonic understandings. As a comprehensive concept, PWB has not been studied in the workplace although all the theorized factors of this concept could plausibly be fulfilled in the workplace. Lastly, whether employee PWB moderates the effects of employee institutional legitimacy judgements on organizational outcomes amidst institutional changes (i.e., in regulation, structure, functions, and practices) has yet to be discovered.

2.3.1. The Mechanisms of Moderation on Organizational Outcomes

The literature does not specify a causal pathway or the mechanisms by which PWB could moderate the effects of individual institutional legitimacy judgements on organizational outcomes. However, Vallerand (2000) offers a process model called the *Hierarchical Model of Intrinsic and Extrinsic Motivation* (Vallerand, 1997) that provides some insight into these mechanisms. Vallerand (1997) uses the SDT framework but the Hierarchical Model has some elements of disagreement with the SDT causal model put forth by Deci and Ryan (Deci & Ryan, 1985). The conceptualized model is depicted in Figure 10 and describes processes from a global, contextual and situational lens.

Figure 10: Hierarchic Model of Intrinsic and Extrinsic Motivation



Sourced from: Vallerand, 1997

INSTITUTIONAL LEGITIMACY AND ORGANIZATIONAL OUTCOMES

The two perspectives (Deci & Ryan vs. Vallerand) are more similar than not and, thus, Vallerand (2000) delimits his critique to four main points of divergence: 1) the importance of a hierarchical structure of motivational processes; 2) the role of SDTs three psychological needs (autonomy, competence, and relatedness) in the motivational sequence; 3) individual differences in needs 4) the different roles of the need for relatedness. Points 2) and 3) above are, in particular, useful for the research question. Vallerand (2000) seeks to understand whether need satisfaction is a direct contributor of affect, cognition, and behaviour or whether motivation is the most proximal influence. From an applied perspective, a better understanding of the causal sequence at play could help identify the factors to focus on in order to derive better results from strategies and interventions.

Based on the Hierarchical Model, Vallerand (1997) posits the following causal sequence: the environment (i.e., institutional and social factors) combines with personal factors such as perceived autonomy, competence, and relatedness (need satisfaction in SDT) that in turn influences motivation that in turn leads to outcomes. Thus, according to the Hierarchical Model, need satisfaction plays an indirect distal role in the sequence, whereas motivation is hypothesized to play a much more direct proximal function in the experience of outcomes. Vallerand (1997) reviews research that supports several aspects of this causal sequence, that is, that the effect of need satisfaction on outcomes is mediated by self-determined motivation. The more self-determined the motivation, the more positive the outcomes. In the literature review conducted by Vallerand (1997), need satisfaction, as a standalone predictor, had no impact on outcomes. It would thus appear that the positive effects of psychological needs on outcomes proposed by SDT are not due to the process of need satisfaction as such but rather to the ability of needs (when satisfied) to create and sustain the motivational force that will facilitate positive outcomes. Thus, need satisfaction (the energized state to create motivation) would moderate the self-determined motivation for action and the resulting outcomes. With regards to point 3), Vallerand (2000) emphasizes that the study of individual differences in psychological needs is important to understand motivational forces driving outcomes. For example,

different processes may be in operation for individuals with a high need for relatedness as compared to those with a low need for relatedness. Perceptions of relatedness may be more important for some people whereas perceptions of competence may be more important for people who are low in the need for relatedness. This renders intra individual differences an important issue. Thus, from the perspective of the Hierarchical Model, individual differences in needs may serve various functions, including that of determining which type of perceptions will influence motivation for desired organizational outcomes. Contrary to SDT, Vallerand claims that looking into individual differences in psychological needs may prove quite informative. Vallerand's theorizing helps to clarify the mechanisms of psychological needs, provides clarification of the mechanisms at work in the moderation process, and underscores the importance of intra-individual data analysis. It also provides a useful lens to analyse and explain significant or unexpected combined effects of the predictor variables on organizational outcomes in this study.

2.3.2. Propositions 5 and 6 (Interaction Effects)

Proposition 5: The combined effects of individual institutional legitimacy judgements and employee PWB will strengthen the negative correlation to sickness absence (path c, Research Model, Figure 1).

Proposition 6: The combined effects of individual legitimacy judgements and employee PWB will change the direction to a negative correlation with presenteeism (path c, Research Model, Figure 1).

These are summarized in Table 6.

Table 6: Propositions 5 and 6

Propositions 5 & 6 Interaction Effects	Sickness Absence Correlation	Presenteeism Correlation
Individual Institutional Legitimacy Judgements and Employee PWB	Strengthened -ve	Change direction to -ve

2.4. Conclusion of Literature Review

The literature on the concepts individual institutional legitimacy judgements, PWB, and the organizational outcomes, sickness absence and presenteeism reveals that there is epistemological synergy among these concepts yet research directly studying their relational effects has not been conducted. Although institutional, organizational, and individual factors have rarely been studied together the literature suggests that such a research endeavour would be beneficial. The research question in this proposed study asks:

What is the relational effect between individual employee's institutional legitimacy judgements and the organizational outcomes sickness absence and presenteeism, and does it change with the level of employee's psychological wellbeing?

Identifying the extent to which PSEI change has impacted upon organizational and employee functioning is the main purpose of this proposed research and the choice of the concepts of interest reflect this purpose. Reduced funding, increased measures of accountability and efficiency, and changes in structures and practices have created increasing pressures in the PSEI field (Douglass, 2010; Fisher, et al., 2009; Marshall, 2008; Usher & Dunn, 2009). These factors have contributed to increased complexity and challenges associated with managing and working in the PSEI sector.

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Theoretical and empirical findings support the general proposition that employee's PWB, in the face of changing institutional practices, policies, and structures, has an effect on organizational outcomes. It has been theorized that PWB will add to this body of knowledge because of its sensitivity to environmental changes. It is proposed that PWB will moderate the negative influences that institutional changes may have on employees and their organization. Links among the concepts institutional legitimacy judgements, PWB and sickness absence and presenteeism are promising from a theoretical and empirical perspective.

This literature review provides theoretical and empirical support for six (6) propositions related to the research question and undergirds the research design. The propositions have implications for how managers approach organizational and institutional changes to foster thriving employees and organizations. If employee institutional legitimacy judgements and PWB are key ingredients to effectively managing organizational outcomes, it is important to gain greater understanding about the empirical relationships and effects among these concepts. The propositions are summarized below in Table 7.

Table 7: Summary of the Research Propositions

Propositions	**Predictor Variables**	**Outcome Variables**	
		Sickness Absence Correlation	**Presenteeism Correlation**
Propositions 1&2	Individual Institutional Legitimacy Judgements	-ve	+ve
Propositions 3&4	Employee PWB	-ve	-ve
Propositions 5 & 6 (Interaction Effects)	Individual Institutional Legitimacy Judgements and Employee PWB	Strengthened -ve	Change direction to -ve

3. RESEARCH METHODOLOGY

This section describes the methodology that is used to study the research question and propositions posed in Chapter 2. An overview of the methodological approach is provided and includes information about the research design, participants, instruments of measurement, and the data collection and analysis methods.

3.1.Research Design

Organizational research can be done in a natural environment where work proceeds normally (natural and uncontrived settings) or in artificial, contrived settings (Johns, 1991). This research was conducted in a natural working environment. A quantitative approach using a correlational design was employed and the data collection was over a one-month period. The research question is both descriptive and relationship oriented and is exploratory in nature (Mouton, 1996). It seeks to identify and describe a phenomenon as well as determine the effects and relationships among the phenomena under study (Burns & Grove, 1993).

Surveys or questionnaires are often used when conducting research of a descriptive, explanatory or exploratory nature (Burns & Grove, 1993). In this study information was gathered from a sample of BCU employees by means of self- report, that is, employees were asked to respond to a series of questions posed in a questionnaire. Information was collected through self-administered questionnaires distributed by email to the participants by the researcher. Both descriptive and exploratory questions were selected to test particular theories. The information gathered provides a descriptive account of the characteristics of individual BCU employees and their institutional legitimacy judgements, PWB states, and sickness absence and presenteeism behaviours. The data from the questionnaires is examined for statistical effects and relationships in order to meet the objectives of the study (Burns & Grove 1993).

A cross sectional design is employed to examine the correlation between measures of individual institutional legitimacy judgements, PWB, and organizational outcomes in a university employee sample. Although there are some noted drawbacks to cross-sectional designs (i.e., cannot establish direct cause-effect pathway) (Brown, Cozby, Kee, & Worden, 1999), such designs have both practical and theoretical value. A cross-sectional design allows researchers to generate propositions about possible causal relationships, identify potential mediators/moderators, and test theory which can eventually lead to theory modifications (Bauman, Sallis, Dzewaltowski & Owen, 2002).

With observational data, some particular conditions must be met in order to make relational inferences (McMillan & Schumacher, 1993). The conditions in this study are the proposed predictor variables (IILJs and PWB). The outcome variables are the organizational outcomes sickness absence and presenteeism.

Two models were tested. In model 1 the relationship between the predictors (institutional legitimacy judgements and PWB) and the outcomes (sickness absence and presenteeism) was studied as distinct, single, and as related foci on the regression modeling (as prescribed by the research question). In model 2, the moderating influence that PWB, combined with institutional legitimacy judgements, has on the organizational outcomes was studied. Model 2 specifically examined the interaction effects of the 2 predictors on the organizational outcomes sickness absence and presenteeism. For example, the relationship and effects between the predictors singly (Model 1) and in concert (Model 2) and the outcomes (singly) were studied and analyzed. Essentially the data is analyzed in hierarchic levels with and without the interaction effects of PWB as the moderator.

3.2.Population and Sample

3.2.1. Population

The population of interest in this study is regular part-time and full-time PSEI employees working at BCU's main campus. The categories include employees from administration (i.e., union exempt such as the President, VP Finance, Deans, Executive Directors, Managers, HR Advisors), and the three employee unions at BCU. The three unions are: Canadian Union of Public Employees or *CUPE* support (i.e., Program Assistants, Payroll Clerks, Registration Clerks); BC Government and Services Employee Union or *BCGEU* (i.e., Vocational Instructors), and; the University Faculty Association or *UFA* (i.e., Academic and Professional Faculty). Controls will be employee's age, gender, Faculty affiliation, level of education completed, job type (regular, part-time or full-time), union affiliation (exempt, UFA, BCGEU, CUPE), and years of employment.

3.2.2. Sample and sampling method

Subjects included in the sample will be selected based on the following criteria:

- Be a regular (part or full time) employee working at BCU's main campus
- Be an employee for 6 mos. or longer
- Be consenting and willing to participate
- Be 18 years or older

The topic of the research is anticipated to be the main motivation for employees to voluntarily participate when invited via email. The study will provide employees with an opportunity to "evaluate" their place of employment (i.e., institutional legitimacy judgements) and their work related functioning.

The sample size will be approximately 835 regular employees, both full-time and part-time. Acceptable parameters include a 5% margin of error with a confidence level of 95% and response distribution of 50%. This means if 50% of all the employees in a sample of 835 have positive institutional legitimacy judgements, then 95% of the time, the questionnaire would find that between 45% and 55% of the people in the sample answered "Yes" to non-reverse questions. The remaining 5% of the time, or for approximately 1 in 20 questionnaire questions, it can be expected that the questionnaire response will be more than the margin of error away from the true answer. When a sample of a population is surveyed it is not possible to know if the correct answer is found, but it is known that there is a 95% chance that the empirical finding is within the margin of error of the correct answer (Cochran, 2007). Given the large sample size a lower margin of error and higher confidence level could be used but in this study the recommended 5% margin of error and 95% confidence level has been assumed. Assuming all 835 employees fit the sampling frame and criteria, Table 8 summarizes the approximate % of respondent type based on the total number of employees.

Table 8: Profile of Respondents

Respondent type	Number to be sampled	% of N
Regular employee (Full and Part-Time)	835	100
Total N	835	100

3.3. The Research Instrument(s)

A questionnaire was chosen as the data collection method since it is suited to testing propositions and hypotheses (Burns & Grove, 1993). Additional benefits in using a questionnaire include:

- Information can be gained from a large sample of respondents quickly and easily.
- A high response rate is reasonably guaranteed as the questionnaire will be distributed to respondents to complete and will be collected personally by the researcher.

- Less time and energy are required to administer (as compared to interviews).
- The possibility of anonymity is offered because subjects' names will not be required on the completed questionnaires.
- It is relatively economical, having standardized questions.
- There will be less opportunity for bias as items will be presented in a consistent manner.
- Most of the items in the questionnaire will be closed ended, which will make it easier to compare the responses to each item.
- They are more efficient since respondents are typically able to complete more closed-ended items than open-ended items in a given period of time.

(Cochran, 2007, p. 238; Polit & Hungler 1994, p. 203)

A structured questionnaire (see Appendix D) was used to gather data in English. Participants were given the assurance that their answers and responses will not be able to be linked to them at the stage of data input or analysis, therefore ensuring anonymity. The structured questionnaire consists of sections A, B, C, and D. Section A focuses on gathering the institutional legitimacy judgements of participants in the three main dimensions: instrumental; relational, and; moral. Section B is aimed at gathering data on study participants' PWB at work. An established PWB scale presented by Diener et al. (2009) with reported validity and reliability is used. Section C is aimed at measuring the organizational outcomes sickness absence and presenteeism. Lastly, section D is focused on gathering demographic data such as gender, age, level of education, area of work, Faculty affiliation, job type (regular, part-time or full-time), union affiliation (exempt, UFA, BCGEU, CUPE), and length of employment.

3.3.1. Institutional Legitimacy Judgements

As discussed in Chapter 2, there are three dimensions of content underlying legitimacy judgements: instrumental, relational, and moral (Tost, 2011). Since no known scales are available to measure the dimensions of institutional legitimacy judgements, a scale was created for this study. An ethics application was submitted to the Athabasca University (AU) Research Ethics Board (REB) since a survey involving human subjects was used to establish the instrument's content validity. Approval to proceed with the study was granted in April, 2015. Table 9 provides a descriptive summary of each of the factors used to design the survey scales.

Table 9: Institutional Legitimacy Judgement Dimension Definitions

Content	Definition
Instrumental	Instrumental judgement refers to whether the organization: provides for the material or self-interests of employees; provides its employees with the necessary resources to be efficient and effective, and; is effective and efficient in delivering what it says it will deliver to employees. If these conditions are met, obeying the organizational supervisors is typically warranted, even when there is disagreement (and judgement ceases).
Relational	Relational judgement refers to the degree of fit between the employee and their organizations values, beliefs, and practices. It also relates to whether the organization treats its employees with dignity, respect, and acceptance and provides employees with the rewards and benefits they are entitled too. Employee satisfaction in work relations (or not) is indicated.
Moral	Moral refers to whether the organization's morality and ethicality is congruent with an employee's moral and ethical values. It also relates to an organization's demonstrated integrity and dependability in decision making, problem solving, social welfare, and perceived fairness. Employee loyalty (or not) is indicated.

3.3.1.1. Analysis of the Data

A measurement assumption in research presupposes that the operational variable is a clear representation of the conceptual variable (Brink, 1997). A first step in psychometric testing is to address this assumption; therefore establishing content validity of the designed

individual institutional legitimacy judgement instrument was done. A second test of the measurement assumption concerns the construct validity of an instrument and whether the empirical measure performs as predicted (Brink, 1997). Following content validity testing of the instrument and data collection in the main study, exploratory factor analysis (EFA) was conducted to establish patterns amoung the data sets reported for the individual institutional legitimacy judgement scale and determine whether it measured what it was intended to measure. In efforts to establish internal construct validity, EFA is used extensively by researchers involved in the development and evaluation of scales (Field, 2009). It can test theories or hypothesis concerning the structure underlying a set of variables (Field, 2009). The content validity results for the individual institutional legitimacy judgement scale are reported here and the EFA results are reported in Chapter 4.

The legitimacy judgement scale was created using the three main content areas theorized in the literature with 7 items for the instrumental factor, 8 items for the relational factor, and 8 items for the moral factor. The content validity survey used is in Appendix B. To establish the scales' content validity the results were assessed using two tests recommended by Rubio, Berg-Weger, Tebb, Lee & Rauch (2003).

First, to establish content validity, the reliability or extent of interrater agreement (IRA) for each item was assessed for clarity. A four-point scale was used to calculate the IRA for clarity (Rubio et al., 2003). Interrater agreement for representativeness was omitted because it was felt important to keep the survey length reasonable for participants. In addition, representativeness was viewed as somewhat redundant to the factor validity index (FVI) which is the other test that was conducted to establish content validity. The IRA scale is dichotomized, with values one and two combined and values three and four combined. This method is consistent with the literature on conducting content validity studies (Davis, 1992; Grant & Davis, 1997; Lynn, 1986). The data are dichotomized so that the researcher can

assess the extent to which the experts agree that the item is clear or not. The researcher counts the items that experts rated one or two and the items that are rated three or four. An IRA can be calculated for each item as well as for the scale. To determine the IRA for each item, the agreement among the experts is calculated. The IRA was computed as follows. The number of items considered 100 percent reliable, i.e., the number of experts who rated the item as a 3 or a 4 is divided by the total number of items.

A factorial validity index (FVI) was created by Rubio et al. (2003) to determine the degree to which the experts appropriately associated the items with their respective factors. This gives a preliminary indication of the factorial validity of the measure. To calculate the FVI for each item, the number of experts who correctly associated the item with the factor is divided by the total number of experts. Again, the average is taken across the items to compute the FVI for the measure. Rubio et al (2003) recommend a minimum .80 FVI since there are no criteria to determine the desired level to achieve. This is consistent with the recommended level of the IRA. Conducting a factor analysis is required to assess the full degree of factor validity but for the purposes of establishing content validity of the scales a FVI as described is sufficient (Rubio et al., 2003).

3.3.1.2. Sample for Content Validity Study

Four professionals were identified who have expertise in PS education but are not BCU employees. The established sample criteria required that the participants work in a PSEI, have a doctoral degree, and have conducted research in social sciences. All four met the criteria.

3.3.1.3. Materials and Procedure

Using the theoretical definitions provided, the experts rated each item to determine the item's clarity and factor validity. They were also asked to evaluate the comprehensiveness of

the entire measure to determine if they thought any items should be deleted or added to the scale. Each item had a separate area for comments or “other” so the experts could explain their thoughts more fully if desired. Additionally, the last two open ended questions asked the experts if they would add or delete any items and to explain their reasons. See the survey in Appendix B.

3.3.1.4. Methods

A web survey was emailed to four PSEI employees via their public employee directory. They were randomly selected and not known to the researcher. Introductory information about the purpose of the study, the content, contact information for the study researcher and supervisor, the online survey company, and a definition of institutional legitimacy judgements were provided. Recruits were asked to commit 30 minutes to complete the survey.

An online survey company, QuestionPro, was used for creating and distributing the survey. QuestionPro is hosted by a web survey company located in the USA and as such is subject to the US Patriot Act. It is known that the Patriot Act allows authorities access to the records of internet service providers. In the survey introduction a privacy statement was provided to recruits before they agreed to participate. Participants were informed about the US Patriot Act and that their responses would be stored and accessed in the USA. It was specified that they would not be asked for personal identifiers or any information that may be used to identify them. A link to the web survey company’s security and privacy policy (https://www.questionpro.com/security/) was provided. The web research server guarantees (to survey researchers) to protect the privacy and confidentiality of the respondents. The Respondent Anonymity Assurance (RAA) asserts that once it is enabled on a survey, although computer generated identification numbers for individuals will be generated, the

survey researcher will not have access to both the respondent's email address as well as the response data at the same time. Particular security features were manually enabled by the researcher prior to introducing the survey to the research participants. For example, all tracking and storage of IP addresses and email addresses were turned off in the settings. Saving IP addresses in the “results” was disabled. Additional security features are SSL (Secure Sockets Layer) Security, which establishes an encrypted link between a web server and a browser, and Password protected surveys. A password was required for recruited participants to access the survey. The survey was only available to those solicited.

3.3.1.5. Results

Of the four experts all accepted the invitation to participate. Two of the participants required a reminder to complete the survey and a 100% completion rate was attained within three weeks of first contact. All respondents completed the survey within the suggested time. The calculations of the IRA are provided to assess clarity of the items. Of the 7 items for the instrumental dimension, 6 were considered 100 percent reliable. That is, for the 6 items, all experts rated the item consistently. This produced an IRA of .86. For the relational dimension, they rated 7 out of 8 items the same generating an IRA of .88. For the moral dimension, 6 out of 8 were rated consistently among the experts and considered 100 percent reliable. This produced an IRA of .75. The IRA for the dimensions are encouraging although a little less so for the moral dimension. However, if the IRA are examined for each item singly, all the items (with the exception of one in the instrumental dimension and one in the moral dimension) have an IRA of .80 or greater. The two items that had less than the recommended .80 IRA had an IRA of .75. This means 3 out of 4 experts rated the item the same.

Calculating the FVI is accomplished by counting the number of experts who correctly assigned the item to the factor and dividing that number by the total number of experts (Rubio et al., 2003). Because the FVI is a new index no criteria exist to determine the desired level to achieve, however, Rubio et al. (2003) recommend that a FVI of at least .80 be achieved to be consistent with the IRA. For the instrumental dimension, all of the experts were able to assign three items to the correct factor. For three items, only three experts (of four) were able to correctly assign the items to the factor for a FVI of .75. One item, number 14, has an FVI of .50, because two experts correctly assigned this item to the factor. Comments from half the experts suggested clarifying "what rules" and a context for the difficulty. The wording was changed to "established organizational rules" and the context added was "with what I have to work with". The average FVI for the instrumental dimension is .82. The relational dimension yielded similar results. All the experts correctly assigned four items to their respective factors (FVI = 1.00). Three items have an FVI of .75 because three of four experts correctly connected the item with the respective factor. For one item, number 15, the FVI was .50, indicating that only half of the experts were able to discern the correct factor. Half of the experts stated, based on the wording, it was quite difficult to discern what dimension the item belonged to. To provide clarity the wording was changed to include "practices" (rather than procedures), since practicing is a human endeavor in relation to someone or something. Also, "the organizations supervisors" replaced "organization" because relationships are with people not entities. The average FVI for the relational scale is .84. The results for the moral dimension were also similar. Four items were correctly assigned to their factors by all the experts (FVI=1.00). Only three items were correctly assigned by three of the experts (FVI = .75). One factor was connected correctly by two experts (FVI = .50). This factor, item 11, now reads "At least 60% of organizational procedures and policies aren't implemented properly and need to be changed." The word

"procedures" replaced the word practices because the two experts suggested procedures is a better fit with policies. The words "aren't implemented properly" were inserted because the experts claimed a reason for wanting them changed would provide more clarity when choosing a dimension. These results are summarized in Table 10.

Since the recommended .80 for both the IRA and FVI tests has been met it is assumed that the content validity of the proposed scale for measuring individual institutional legitimacy judgements is satisfactory for application in the proposed research. The measure will be called the individual institutional legitimacy judgements scale (IILJS). See Appendix D for the structured questionnaire. The IILJS is in Section A.

Table 10: Items as Rated by Experts for Factorial Validity

Dimension	Experts				
Instrumental Items	1	2	3	4	FVI
3- Insufficient resources	1	1	1	1	4/4=100
4-Accept authority	1	1	1	1	4/4=100
10-Follow rules	0	1	1	1	3/4=75
12-Delivers well	1	1	1	1	4/4=100
14-Difficult to follow	1	0	1	0	2/4=50
19- Ignore directions	0	1	1	1	3/4=75
22- Performs on par	1	0	1	1	3/4=75
				Average FVI Instr	.82

Dimension	Experts				
Relational Items	1	2	3	4	FVI
2- Voluntarily accept	1	1	1	1	4/4=100
6-Agree values	0	1	1	1	3/4=75
7-Dissimilar views	0	1	1	1	3/4=75
8-Fulfilling workplace	1	1	1	1	4/4=100
15-Appropriate practices	1	0	0	1	2/4=50
16-Frustration at how	0	1	1	1	3/4=75
18- Not approved of	1	1	1	1	4/4=100
21- Satisfaction	1	1	1	1	4/4=100
				Average FVI Rel	.84

Dimension	Experts				
Moral Items	1	2	3	4	FVI
1-Ethical Morals	1	1	1	1	4/4=100
5- Poor Integrity	1	1	1	1	4/4=100
8- Fair	1	0	1	1	3/4=75
11-Improper implementation	0	0	1	1	2/4=50
13-Trust decisions	0	1	1	1	3/4=75
17-Loyalty	1	1	1	1	4/4=100
20-Can't depend on	1	1	1	0	3/4=75
23-Ought to be	1	1	1	1	4/4=100
				Average FVI Moral	.84

Upon completion of the content validity testing and the data gathering phase of the main study an exploratory factor analysis (EFA) is conducted on the newly developed IILJS. EFA is frequently used to assess an instruments score validity (particularly related to construct validity) by examining whether the intercorrelations amoung the scales variables demonstrate the expected structure for the construct,

i.e., do the variables have a statistical association with the proposed theoretical factors (Field, 2009). The empirical data is gathered, the hypothesized relationships are tested, and data consistency with the hypothesis is determined. EFA is an important step to establishing construct validity because it determines if an instrument measures the variables it purports to (Shepard, 1993). Following EFA of the legitimacy instrument, hierarchical multiple regression using SPSS (SPSS, 2011) is employed to describe, explain, and potentially predict the outcome variables using the predictor variables. Statistical techniques incorporated more than one predictor variable and more than one outcome variable (multivariate) to the model. The predictors and the moderator were categorical, specifically, ordinal and discrete.

3.3.2. The PWB (Flourishing) Scale (FS)

A measure of WB based on recent theories of psychological and social WB has been created by Diener et al. (2009) to measure social-psychological prosperity and flourishing (Diener et al., 2010). The Flourishing Scale (FS), which was originally called the PWB scale (Diener et al., 2009), is a brief eight (8)-item summary measure of study respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism. The scale provides a single PWB score, has good psychometric properties, and is strongly associated with other PWB scales (Hone et al., 2013). In recent years a number of psychological theories of human flourishing based on humanistic psychology have been developed. Ryff (1989), Ryff and Singer (1998), and Ryan and Deci (2000) suggest that there are several universal human psychological needs, such as the need for competence, relatedness, and self-acceptance. Several of these characteristics are assessed by Diener et al.'s (2010) FS. In addition, the desirable states in life of flow, interest, and engagement (Csikszentmihalyi, 1991), meaning and purpose (Seligman, 2004), and optimism (Peterson and Seligman, 2004) have been incorporated into the FS.

According to Ryan and Deci (2000), universal needs such as competence, autonomy, and relatedness, must be satisfied for people to develop and function in healthy or optimal ways. Many of

the propositions related to humanistic psychology theories derive from the belief of fundamental psychological needs, and the concept has proven valid and reliable for making meaningful interpretations for a wide range of empirically isolated phenomena (Deci et al., 2001). The FS (Diener et al., 2009, 2010) is a brief yet comprehensive measure of PWB that spans all life domains. Like other PWB measures it may be adapted to particular life contexts (i.e., work) due to the spill over effect of WB from one life domain to another (Ryan & Deci, 2001). The scale that is used in this study assesses flourishing in life and although the questions remain the same they have been adapted slightly to focus on flourishing at work.

The FS (Diener et al., 2009) has been psychometrically tested and reported to be a valid and reliable measure of PWB in several national populations. Results were consistent for several sample populations including: U.S. college students (Diener et al., 2009, 2010); separate samples of Portuguese adults and undergraduates (Silva & Caetano, 2013); New Zealand adults (Hone, Jarden,& Schofield, 2014); Chinese adults (Tang, Duan, Wang & Liu, 2014), and; Japanese adults (Sumi, 2014).

The FS has eight (8) items describing important aspects of human functioning (i.e., positive relationships, feelings of competence, having purpose and meaning and optimism in life). It provides a broad overview of PWB and positive functioning across diverse domains that are believed to be important. It does not measure each of the separate components of PWB as other longer scales do (Diener et al., 2009). Each item of the FS is answered on a 1–7 Likert scale that ranges from “Strong Disagreement” to “Strong Agreement”. All items are phrased in a positive direction. Scores can range from 8 (Strong Disagreement with all items) to 56 (Strong Agreement with all items). High scores signify that respondents view themselves in positive terms in important areas of functioning. See Appendix D for the structured questionnaire. The FS is in Section B.

Four published studies of the eight (8)-item FS provide consistent psychometric test results and a promising foundation for its use in practice (Diener et al. 2010; Silva and Caetano 2011; Chen, Lee, Pethtel, Gutowitz & Kirk, 2012; Hone, Jarden & Schofield, 2014). In the original study, Diener et al.

(2010) showed the FS to have good psychometric properties on student populations (n = 689), with high internal (∝ = .87), and temporal reliabilities (.71), and high convergence with other WB scales including the Satisfaction with Life Scale (SWLS) (Diener et al., 1985) (r = .62, n = 680, p\.001), Ryff's (1989) PWB Scales (r = .64, n = 74, p\.001), and Ryan and Deci's (2000) Basic Needs Satisfaction in General scale (BNS-GS) (r = .62, n = 527–530,1 p\.001). Students' scores ranged from 25 to 56, M = 44.97 (SD = 6.56). A principal factor analysis (PFA) indicated the presence of one strong factor, with an eigenvalue of 4.24, accounting for 53 % of the items' variance. Following Diener et al.'s (2010) study, Silva and Caetano (2013) investigated the external reliability of the FS in a study exploring its psychometric properties on two Portuguese samples (1: full time employees, n = 717; 2: undergraduate students n = 194). Mean item values ranged from 4.81 to 5.93, but this study found students indicated higher FS scores than workers. Full-time employees' FS scores ranged from 14 to 56, M = 42.92 (SD = 6.10), while students' scores mirrored those of the original study, ranging from 25 to 56, M = 44.15 (SD = 4.86). Principal axis and confirmatory factor analysis across the two samples confirmed the scale's one factor structure. Reliability analysis showed good internal consistency (∝ = .83). High correlations between the FS, the SWLS, Subjective Happiness Scale (Lyubomirsky and Lepper 1999), and Fordyce's single item measure of happiness (Fordyce 1988), provided evidence of construct validity for the Portuguese version. Chen et al. (2012) also used the FS in a study assessing the WB of older adults compared to younger adults, but no descriptive statistics for the FS were reported. Lastly, Hone et al. (2014) analyzed the FS's underlying structure, psychometric properties, and demographic norms using nationally-representative data from New Zealand's Sovereign Wellbeing Index (n = 10,009) (Human Potential Centre. Auckland, NZ, 2013). The results are consistent with Diener et al.'s (2010) original study. Exploratory and confirmatory factor analysis conducted across two samples revealed a one-factor structure for the FS. Hone et al.'s (2014) study adds to the evidence of the FSs internal consistency reliability (a = .91) and its convergent validity which was supported by the strong positive correlations it has with happiness and life satisfaction measures. A strong negative correlation between the FS and the

8-item CES-DS measure of depressive symptoms (Ensel, 1986) demonstrates discriminant validity (Hone et al., 2014). Hone et al.'s (2014) study is the first to report comprehensive demographic norms for the FS using a nationally representative sample of English speaking adults. Results revealed greater range and variance in the scale. For example, significant differences existed according to academic qualifications, with participants only going as far as finishing primary school reporting significantly lower FS scores (M = 40.17, SD = 9.49) than all other academic qualifications. Overall, Hone et al.'s (2014) study gives support to the psychometric properties established in other published studies and builds upon the evidence confirming the use of the FS as a brief summary measure of self-reported psychological functioning.

3.3.3. Sickness Absence

Sickness absence is measured by one question. The study participants are asked how many days of sick leave they have taken over the previous twelve months. This is similar to a single question used in other research (i.e., Johns, 2011). See Appendix D for the structured questionnaire. The sickness absence question is in Section C.

3.3.4. Presenteeism

Presenteeism is measured by a single question asking study participants how many days they have worked during the previous twelve months despite illness or injury. The question is consistent with the definition employed by most organizational and health scholars (Johns, 2010). It is also similar to single question measures of presenteeism that have been used in other empirical studies and demonstrated construct validity (Aronsson & Gustafsson, 2005; Aronsson et al., 2000; Hansen & Andersen, 2008). See Appendix D for the structured questionnaire. The presenteeism question is in Section C.

3.4. Procedure for Data Collection

Ethical approval from the Research Ethics Board (REB) at Athabasca University and BCU to conduct the research was secured on August 17, 2015 and September 15, 2015 respectively. In addition, permission to conduct research at BCU's main campus was sought from the BCU's management (Provost- VP Academic). After permission was granted an email was sent out by BCUs intranet introducing the study to all eligible employees. A brief overview and purpose of the study was shared along with an invitation to participate. This initial introduction and invitation were sent on October 9th, 2015. Employees had an opportunity to "click" the anonymous survey link embedded in this introduction. If they did so they were redirected to the online questionnaire. In the questionnaire respondents were asked to click on "AGREE" before being allowed to "CONTINUE" with the questionnaire. One week was provided for responses to the initial invitation to participate in the study. After this one week period, two follow-up reminders were sent. The first reminder was sent out on October 16th, 2015. It repeated the introductory information and provided the anonymous survey link. Again, respondents were asked to "AGREE" before being able to continue with the survey questions. A final reminder was sent to study participants on October 23th, 2015 and then the survey was closed on November 2nd, 2015. The initial invitation and the two reminders to study participants can be viewed in Appendix C. The introduction and reminder emails included assurance of ethics approval from AU and BCU, and contact information for the researcher, the research supervisor, and the REB of both AU and BCU. Additionally, instructions to complete the questionnaire, the name of the online survey company (QuestionPro), assurance of complete confidentiality and anonymity to participants, and a statement that participation in the study is completely voluntary was provided for each of the contacts with study participants. The study communication also included a privacy statement to recruits before they proceeded with the questionnaire about QuestionPro's server being hosted in the US and subject to the US patriot Act. As with the content validity survey on institutional legitimacy judgements, a link to

the web survey company's security and privacy policy (https://www.questionpro.com/security/) was provided.

The time provided to the study participants to complete the questionnaire was three (3) weeks. The data collected were exported from the QuestionPro survey to an excel spreadsheet and SPSS. The structured questionnaire can be viewed in Appendix D.

3.5.Data Analysis and Interpretation

Statistical analysis of the closed ended questions in the structured questionnaire was carried out with the SPSS program (SPSS, 2011). Initially, an exploratory factor analysis (EFA) was conducted on the IILJS data to gather information about the interrelationships amoung the theorized variables and factors. In essence the shared variance of factors was analyzed. The EFA includes three main steps: assessment of the suitability of the data for FA; factor extraction, and; factor rotation and interpretation (Field, 2009). Following EFA on the IILJS an analysis of the relational effects of the all concepts under study was done. Descriptive statistics, such as the means, standard deviations and Pearson correlations were determined to describe the data. Frequency tables were created for the data and presented in pie charts and bar graphs. The practical significance of the correlation coefficients is set at a cut-off point of 0.30 which represents a medium effect (Hair, Black, Babin & Anderson, 2010). Multiple regression analysis is used to determine the predictive power of the models presented in Chapter 1 (Field, 2009).

Regression analysis is a technique used for measuring linear relationships between two or more variables (Hair et al., 2010). In this research, hierarchical regression analysis is used to measure the separate relational effects between each of the two predictor variables, individual institutional legitimacy judgement variables and PWB, and the outcome variables, sickness absence and presenteeism (Model 1). A second hierarchical regression analysis is used to measure the interaction effect of individual institutional legitimacy judgements and PWB on the outcome variables, sickness

absence and presenteeism (Model 2). An omnibus effect (F test) is identified for all the predictor variables in each model to identify legitimate significant effects on the outcome variables (Swart, 2011).

3.6. Validity and Reliability

Polit and Hungler (1994, p. 445) refer to reliability as the degree of consistency with which an instrument measures the attribute it is designed to measure. As previously discussed, the reliability of the FS questionnaire (Diener et al., 2009, 2010) is substantiated. Using single questions to collect data on sickness absence and presenteeism has been supported in the literature (Nagy, 2002; Wanous, Reichers, & Hudy, 1997). In past research (Johns, 2011; Macgregor, 2013) high statistical consistency has been demonstrated among the questions and the responses which supports their reliability. Reliability also means the researchers would get similar results if they repeated their questionnaire soon afterwards with the same employees. This "repeatability" of results is called test-retest reliability (Barlow & Proschan, 1975). Reliability can be ensured by minimizing sources of measurement error like data collector bias. Data collector bias was minimized in this study since the researcher will be the only one to administer and analyze the questionnaires. The physical and psychological environment (i.e., a familiar physical context i.e., the workplace) for data collection supported the study participant's privacy and confidentiality. Participants were not able to write their names on the questionnaires to ensure anonymity and confidentiality.

The validity of an instrument is the degree to which an instrument measures what it is intended to measure (Polit & Hungler, 1994, p.448). Content validity refers to the extent to which an instrument represents the factors under study. To achieve content validity for the concept individual institutional legitimacy judgements, a survey was designed and distributed to a defined sample. The questions posed were based on information gathered during the literature review to ensure appropriate

representation, clarity, and comprehensiveness of the constructs under study. Content validity was also ensured by consistent administration of the questionnaires (Burns & Grove 1993, p. 373).

Burns and Grove (1993, p. 270) refer to external validity as the extent to which study findings can be generalized beyond the sample used. External validity will be fulfilled if all the people approached to participate in the study complete the questionnaires. Finding people who are willing to participate in a study can be difficult, particularly if the study requires extensive amounts of time or other types of investment by them. If the number of the persons approached to participate in a study declines and sampling numbers are difficult to achieve, generalizing the findings to all members of a population is not easy to justify. The study was planned to limit the investment demands on subjects in order to increase participation (Burns & Grove, 1993), i.e., the questionnaire took 15 minutes or less to complete. The number of employees who were approached and the number who did not participate in the study will be reported so that threats to external validity can be judged. As the percentage of those who decline to participate in the study increases, external validity decreases (Burns & Grove 1993, p. 270).

As reported earlier, the FS has established validity (Diener et al., 2010; Silva and Caetano 2011; Chen et al., 2012; Hone et al. 2014). Scholars report the single question measures for sickness absence (Johns, 2011; Macgregor & Cunningham, 2013) and presenteeism (Aronsson &Gustafsson, 2005; Aronsson et al., 2000; Böckerman & Laukkanen, 2010; Caverley et al., 2007; Demerouti et al., 2009; Hansen & Andersen, 2008; Munir et al., 2007; Sanderson et al., 2007) have adequate construct validity. The newly designed scale to measure individual institutional legitimacy judgements has demonstrated content validity and was tested for internal construct validity using explanatory factor analysis (specifically principal component analysis) following data collection.

3.7. Ethical Considerations

Conducting a research study requires honesty and integrity in addition to expertise and diligence. Adhering to these principles of conduct is important in order to protect the rights of human subjects that participate in research (Pimple, 2002). To ensure this study was conducted in an ethical manner, the rights to self -determination, anonymity, confidentiality and informed consent have been strictly observed. Written authorization to conduct the research study was secured from the Research Ethics Board (REB) at Athabasca University and the BCU before beginning the study. Verbal and written permission was sought and granted from the VP Academic (Provost) of BCU.

Participants' consent to be part of the study was obtained before they could access the structured questionnaire online. Burns and Grove (1993, p. 776) define informed consent as the prospective subject's agreement to participate voluntarily in a study, which is reached after assimilation of essential information about the study. The participants were informed of their rights to voluntarily consent or decline to participate, and to withdraw participation at any time without any consequences or penalty. Participants were informed about the purpose of the study, the data collection procedures, and assured that there are no potential risks or costs involved.

Anonymity and confidentiality were maintained throughout the study. Burns and Grove (1993, p. 762) define anonymity as when subjects cannot be linked, even by the researcher, with his or her individual responses. No identifying information was required to enter the questionnaire and participants were only known as a case number once the questionnaire was completed (Polit & Hungler, 1994, p.139). All collected data was associated with a case number. In other words, case numbers were assigned by QuestionPro, the independent survey company, to each participant as opposed to names or employee numbers when collecting, collating and reporting the data. Further, anonymity was ensured once employees agreed to participate since there was no way for the researcher to connect the data to individual participants. When participants are promised

confidentiality it means that the information they provide will not be publicly reported in a way which identifies them (Polit & Hungler 1995, p. 139). Confidentiality has been maintained by keeping the collected data confidential within a secure computer file that can only be accessed with a security code. Any printed data will be kept in a locked cabinet in the researcher's office. The organization or participant's identities will not be revealed when reporting or publishing the study (Burns & Grove 1993, p. 99).

The ethical principle of self-determination has been maintained. Participants were treated as autonomous agents by informing them about the study and allowing them to voluntarily choose to participate or not. Lastly, information was provided about the researcher and research supervisor in the event of questions or complaints.

Scientific honesty is regarded as a very important ethical responsibility when conducting research. Dishonest conduct includes manipulation of design and methods, and retention or manipulation of data (Polit & Hungler, 1995). The researcher has made a conscious effort to avoid any form of dishonesty by recording the participant's answers truthfully and accurately as they reported them. The same integrity was applied when conducting the statistical analysis techniques. Participants are eligible to receive the results of the study if requested. All sources are cited according to the requirements of the Publication Manual of the American Psychological Association (American Psychological Association, 2009).

3.8. Conclusion of Research Methodology

In this chapter the research methodology for the study was described. A quantitative, descriptive and exploratory research design was employed for this study. All the appropriate permissions, approvals, and consents were obtained to proceed with this research. Anonymity, self-determination and confidentiality was ensured during administration of the questionnaire and the report writing. The research design, population, sample, sampling methods, procedures, data collection instruments,

method of data analysis, and the ethical guidelines have been outlined in this chapter. The following measuring instruments were discussed in detail: the Individual Institutional Legitimacy Scale (IILJS); the Flourishing Scale (FS) (PWB), and; single question measures for sickness absence and presenteeism. The questionnaire's suitability, reliability and validity, and the procedure of administering and interpreting the results have been discussed. The strategies that were used to maintain the ethical standards and reliability and validity of the study have been outlined. The remainder of the chapters are devoted to answering the research question and fulfilling the research objectives that were set out in Chapter 1. The quantitative results will be reported, analyzed, and discussed in detail in Chapter 4. A discussion of the research findings and their implications will be addressed in Chapter 5.

RESEARCH PLANNING

Time-table

Table 11: Time-plan for research milestones

	March 2015	April 2015	May-June 2015	July 2015	Aug-Sept 2015	Oct-Nov 2015	Dec 2015
Design, implement, analyse results for IILJS							
Finalize proposal							
Gain approval, ethics application							
Gather data							
Do data analysis							
Write and finalize report							
Defend							

4. RESULTS

The purpose of this study was to investigate the relationship of two predictors, individual institutional legitimacy judgements (IILJ) and psychological wellbeing (PWB) and their interaction effects on two outcomes, sickness absence (SA) and presenteeism. In this chapter the data collected are presented and the findings based on these data are provided. First the descriptive statistics on the concepts studied are presented. Second, the demographics of the study sample are examined and some comparisons are made with the entire population to determine the samples representativeness. The remainder of the chapter is arranged according to the two tests that were conducted: 1) Exploratory Factor Analysis (EFA) of the individual institutional legitimacy judgement scale (IILJS), and; 2) Multiple Regression analysis on the proposed models. Each test begins with assumption testing and ends with the conclusions resulting from the tests. The chapter is concluded with a review of the propositions posed in Chapter 1 and how the study results compare to what was inferred from the literature.

SPSS-17 © statistical analysis software was used for all statistical analyses. The probability of making a Type I error (i.e., finding significance in the findings when there is none) was set at a maximum of 0.05 alpha for significance.

4.1. Descriptive Statistics

Prior to conducting assumption tests to determine the appropriateness of conducting factor analysis and multiple regression some general observations were made based on an initial review of respondent and descriptive statistics. Of the 835 online surveys sent to regular (full time and part time) BCU employees, 3 were not deliverable which resulted in a total population of 832. A sample, N= 140, returned complete surveys which computes to a 17% response rate. QuestionPro, the online server for the survey, reported 171 surveys were started, 31 people dropped out, 140 people

completed, and this resulted in an 81% completion rate. Average time reported to complete the survey was 10 minutes. The data were examined and 4 questions were not answered and these were recoded (-99).

In Table 12 the output for descriptive statistics tells us the average number of sick days (SA) in the last year is 3.11 (*SD* = 4.84) and the average number of presenteeism days in the last year is 27.97 (*SD* = 62.05). The mean of the full or composite IILJ Scale is 85.78 (*SD* = 14.75) out of 133 (133= the highest score possible). The average score on PWB is 46.76 (*SD* = 6.56) out of a total score of 56 (56= the highest score possible). The skewness and kurtosis for each variable were examined and the values for SA and presenteeism are greater than the absolute value of one, which suggests non- normal distributions for the outcome variables.

Table 12: Descriptive Statistics, Regression Model

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Full_IILJS	140	39	117	85.78	14.752	217.612	-.482	.205	.361	.407
PWB Score	140	8	56	46.76	6.564	43.088	-1.871	.205	7.904	.407
Q32-SA	140	0	30	3.11	4.844	23.469	3.406	.205	14.037	.407
Q33-Presen	140	0	260	27.97	62.049	3850.100	3.112	.205	8.711	.407
Valid N (listwise)	140									

4.2.Demographics

The responses were fairly well represented across the demographic variables and these are summarized in Table 13 and depicted in pie charts in Appendix I. It is observed that the percentages and majority categories are very similar between the sample and the entire population. The category with the largest number is in bold print. The one category that is the exception to this is age. The majority of the population appears to be approximately 5-10 years younger than the sample, i.e., 45-54 years of age as opposed to the samples majority at 55-64 years of age. Responses were distributed as follows: more women than men (72 to 28% respectively); age was largely between 55-

64 (39%) followed by 45-54 (34%); most employees had a Masters degree (40%); Faculty represented 60% and General Administration 40%; 5 years to less than ten for years of employment represented 26% while 15 or more years represented 24%; 72% were Union members and 27% were exempt; of these groups 26% were exempt (one participant clicked "other"), 21% were CUPE, 12% were BCGEU, and 41% were Faculty Association, and; 86% were full-time regular employees and 14% were part-time regular employees.

Table 13: Demographics - Sample and Population

DEMOGRAPHICS		
CHARACTERISTICS N (%)	**SAMPLE**	**POPULATION***
	n = 140 (±5%)	N = 832 (±5%)
Gender		
Female	**72.14%**	**67.00%**
Male	27.86%	33.00%
Average Age		
25-34	5.71%	5.50%
35-44	17.86%	21.00%
45-54	33.57%	**35.20%**
55-64	**39.29%**	33.30%
65+	3.57%	5.00%
Level of Education		
High School degree or equivalent	1.43%	N/A
College/University diploma or certificate	14.29%	N/A
Trade/Vocational/Technical	1.43%	N/A
Bachelors	17.86%	N/A
Masters	**40.00%**	**43.00%**
Doctorate	25.00%	27.00%
Area of Work		
Faculty	**55.80%**	**60.00%**
Administration**	44.20%	40.00%
Length of Employment		
6 mos. to less than 1 year	2.86%	1.90%
1 year to less than 3 years	12.86%	13.00%
3 years to less than 5 years	12.14%	10.80%
5 years to less than 10 years	**26.43%**	**26.20%**
10 years to less than 15	22.14%	22.79%
15 or more years	23.57%	25.31%
Union or Non-Union (exempt)		
Union	**72.14%**	**79.00%**
Non-Union (exempt)	27.14%	21.00%
Other***	0.71%	N/A
Type of Union		
CUPE	21.32%	24.00%
BCGEU	11.76%	12.00%
UNIVERSITY FACULTY ASSOCIATION	**41.18%**	**44.00%**
N/A (Non-Union)	25.74%	20.00%
Type of Job - Regular FT or PT		
Regular FT	**86.43%**	**80.00%**
Regular PT	13.57%	20.00%
* Sourced from BCU HR		
** Includes: Central Admin. (Executive, HR, Finance, Payroll, Purchasing, Facilities), Registration, Student Affairs, Food and Beverage, Aboriginal Services, Information Technology, University Relations and Communications, Center of Innovation and Excelllence in Learning		
*** Text- Faculty Association but not a member		

4.3. Test – Exploratory Factor Analysis (EFA)

A scale to measure the concept IILJ was developed and tested for content validity prior to conducting the main study. Content validity was established and the results are reported in Chapter 3, the Methodology section of this report. Based on the theoretical literature, a 23 item scale was created. The sub scales of the composite or full scale consisted of 7 instrumental items, 8 relational items, and 8 moral items (See Table 14).

Table 14: Variables used in Factor Analysis

Indicators of IILJ	
Relational	
2.	I voluntarily accept 90% of the decisions made by my organizational supervisors.
6.	I agree with approximately 90% of the values that define my organization.
7. (R)	My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.
9.	It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.
15.	At least 70% of the practices used by my organizations supervisors are appropriate.
16. (R)	I experience frustration more than 60% of the time at how supervisors deal with workplace problems.
18. (R)	The people I work with do not seem to approve of how I work.
21.	I experience satisfaction at how work problems are resolved for 80% of the time.
Instrumental	
3. (R)	I do not feel my organization provides me with the necessary resources to be efficient in my job.
4.	I accept the authority of my organizations supervisors, even if I think they are wrong.
10.	I follow workplace rules.
12.	My organization is efficient in delivering what it says it will deliver to me.
14. (R)	I find it difficult to follow established organizational rules with what I have to work with.
19. (R)	When I am working there are times it is okay to ignore what my organizations supervisor tells me to do.
22.	My organization is performing as well as other Universities in delivering educational programs.
Moral	
1.	I feel like my ethical morals are congruent with the organizations.
5.	My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.
8.	Organizational supervisors show a real interest in trying to be fair to me.
11. (R)	At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.
13.	I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.
17.	I feel loyal to my organization.
20. (R)	I can't depend on my organizational supervisor to help me solve problems in my work.
23.	My organization exemplifies what a University ought to be.

Initially, the factorability of the 23 IILJ items was examined. First, the data were screened for univaraite outliers and none was identified for the IILJ data. Two missing data were found for question 22 and this was recoded as missing data (-99). Second, the minimum amount of data for factor analysis was satisfied, with a final sample size of 140 (using listwise deletion), providing a

ratio of 8 cases per item (Kass & Tinsley, 1979; Tabachnick & Fidell, 2007). Third, it was observed that 23 of the items correlated at least .3 with the majority of other items suggesting reasonable factorability (see Appendix E). Fourth, the Kaiser-Meyer-Olkin measure of sampling adequacy was .93, rated as superb, above the commonly accepted value of .7 (Field, 2009). Bartlett's test of sphericity was significant ($x2(253) = 1902.47$, $p < .001$) and identified that there are relationships amoung the variables that show promise for inclusion in the analysis (See Table 15). This analysis supported that a factor analysis was appropriate for this data.

Table 15: KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	1902.471
	df	253
	Sig.	.000

4.3.1. Factor Analysis

Exploratory factor analysis (EFA) was used because the primary purpose was to identify and compute composite scores for the factors underlying the IILJ. Initially the oblique oblimin rotation was chosen because correlation between factors was expected based on theoretical grounds. A default setting of 0 was kept to ensure high correlation of factors was not allowed. The regression method was chosen since correlation between factors was acceptable. Initial eigenvalues indicated that the first four factors explained 45%, 8%, 5% and 4.8% of the variance respectively. The fifth, sixth, and seventh factors were each slightly over 3% of the variance. The eighth to the twelfth factors each had slightly over 2% of the variance. The thirteenth to the nineteenth factors each had just over 1% of the variance. Lastly, the twentieth to the twenty third factors had below 1% of the variance. This is shown in Table 16. Next solutions were each examined and compared using

varimax and oblimum rotations of the factor loading matrix (see Appendix F). The oblimin rotation showed a clean and simple underlying structure therefore it was chosen for the final analysis.

Table 16: Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	10.476	45.547	45.547	10.476	45.547	45.547	9.154
2	1.872	8.141	53.688	1.872	8.141	53.688	2.532
3	1.224	5.323	59.011	1.224	5.323	59.011	4.167
4	1.107	4.814	63.825	1.107	4.814	63.825	6.756
5	.881	3.831	67.657				
6	.850	3.696	71.352				
7	.697	3.030	74.382				
8	.685	2.976	77.358				
9	.594	2.583	79.941				
10	.583	2.533	82.474				
11	.494	2.149	84.623				
12	.466	2.028	86.651				
13	.428	1.859	88.510				
14	.384	1.668	90.178				
15	.359	1.561	91.739				
16	.327	1.420	93.159				
17	.297	1.293	94.452				
18	.286	1.245	95.697				
19	.256	1.113	96.810				
20	.226	.983	97.793				
21	.200	.868	98.661				
22	.179	.779	99.441				
23	.129	.559	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Ultimately, on theoretical grounds, the second factor (and the items loading onto it) was eliminated because it represented the theme “cognitive legitimacy”. According to Tost (2011), cognitive legitimacy lacks legitimacy judgement content (i.e., it represents passive and unquestionable acceptance of authority). Since the new scale measures legitimacy judgements some “judgement” content must exist. Cognitive legitimacy was discussed in the literature review in the legitimacy judgement section. In crafting the new IILJ scale, a few questions relating to cognitive legitimacy were included to see whether the pattern structure differentiated the theorized types of legitimacy. The factor loadings support that institutional legitimacy judgements occur when actors

actively question the legitimacy of their organizations and institutions on relational, instrumental and moral grounds (Tost, 2011). The three items (q 4, 10, and 19) that exclusively loaded onto the second factor are congruent with the theme of absence of legitimacy judgement content. These are: Item 4 ("I accept the authority of my organizations supervisors even if I think they are wrong"); Item 10 ("I follow workplace rules"); Item 19 ("When I am working there are times it is okay to ignore what my organizations supervisor tells me to do").

Initially items 4, 10, and 19 were removed in stages (singly, in combinations, and then all) to see if they loaded on another factor (see Appendix G). After removal the other items loaded cleanly onto the remaining three factors with the exception of item 2 ("I voluntarily accept 90% of the decisions made by my organizational supervisors") which did not load onto any of the factors (see Appendix G). This factor solution accounted for 62.8% of the variance. It was decided to remove item 2 at this time. The resulting solution had all the items loading onto three factors and this is discussed in section 4.3.2 below.

In sum, a total of three items were eliminated because they did not contribute to the underlying theoretical structure of individual legitimacy judgements and item 2 was eliminated because it failed to load on any of the three primary factors and it plausibly could also fit with a type of legitimacy called "cognitive legitimacy". This left a total of 19 items on the IILJS.

4.3.2. EFA "Best Fit" Solution

The three factor solution using the oblimin oblique rotation explained 63% of the variance and provided the best defined structure. It was preferred because: of its previous theoretical support (three factors represent the content of legitimacy judgement-relational, instrumental, moral- whereas the fourth factor lacked legitimacy judgment content), and; the levelling off of eigenvalues on the scree plot after three factors (see Figure 11). All items contributed to the factor structure with a

primary factor loading of .4 or above and no cross-loadings. The factor loading matrix for this solution is presented in Table 17 and the total variance explained is in Table 18.

Once the factors were extracted the communalities table (see Table 19) shows the proportion of the variance explained by the underlying factor for each question. For example, 62% of the variance associated with question 1 is common (or shared) variance.

Table 17: Three Factor Solution, Oblique

Pattern Matrix[a]

	Component		
	1	2	3
Q20	-.940		
Q16	-.821		
Q21	.768		
Q8	.728		
Q9	.726		
Q15	.713		
Q13	.586		
Q7	-.583		
Q12	.466		
Q3		.800	
Q11		.586	
Q14		.573	
Q5		.444	
Q18		.428	
Q17			.753
Q6			.750
Q23			.689
Q22			.609
Q1			.604

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Figure 11: Scree Plot

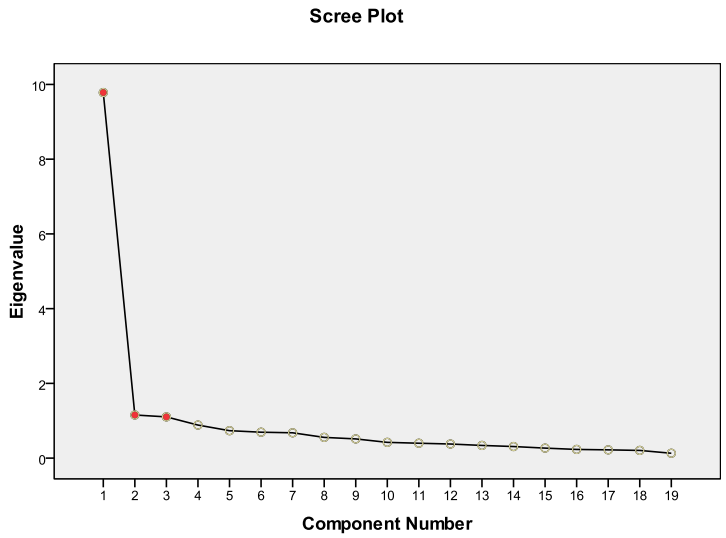


Table 18: Total Variance of Final Pattern Matrix

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.783	51.490	51.490	9.783	51.490	51.490	8.423
2	1.154	6.073	57.563	1.154	6.073	57.563	5.055
3	1.103	5.807	63.370	1.103	5.807	63.370	6.679
4	.884	4.655	68.025				
5	.734	3.864	71.889				
6	.693	3.648	75.537				
7	.677	3.566	79.103				
8	.555	2.919	82.021				
9	.514	2.704	84.726				
10	.422	2.219	86.944				
11	.398	2.096	89.040				
12	.377	1.986	91.025				
13	.339	1.785	92.811				
14	.310	1.630	94.441				
15	.268	1.408	95.849				
16	.232	1.222	97.071				
17	.221	1.162	98.233				
18	.206	1.082	99.316				
19	.130	.684	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 19: Communalities

Communalities

	Initial	Extraction
Q1	1.000	.621
Q3	1.000	.612
Q5	1.000	.589
Q6	1.000	.699
Q7	1.000	.570
Q8	1.000	.684
Q9	1.000	.730
Q11	1.000	.563
Q12	1.000	.613
Q13	1.000	.714
Q14	1.000	.535
Q15	1.000	.710
Q16	1.000	.763
Q17	1.000	.567
Q18	1.000	.321
Q20	1.000	.731
Q21	1.000	.778
Q22	1.000	.548
Q23	1.000	.692

Extraction Method: Principal Component Analysis.

The theoretical labels proposed for the factors by Tost (2011) fit well with the extracted factors and were retained. The results of the EFA indicate the construct individual institutional legitimacy judgements (IILJ) and the scale to measure it (IILJS) have three main dimensions. These are: relational, instrumental, and moral. Although the items fit well with the three factors, some of the items association with the original sub-scales were changed as a result of the EFA. The original sub-scales can be viewed in Table 14 (23 items). The sub-scales following EFA are in Table 20 (19 items).

Table 20: Factors and Items Post EFA

Indicators of IILJ	
Relational	
7. (R)	My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.
8.	Organizational supervisors show a real interest in trying to be fair to me.
9.	It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.
12.	My organization is efficient in delivering what it says it will deliver to me.
13	I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.
15.	At least 70% of the practices used by my organizations supervisors are appropriate.
16. (R)	I experience frustration more than 60% of the time at how supervisors deal with workplace problems.
20.(R)	I can't depend on my organizational supervisor to help me solve problems in my work.
21.	I experience satisfaction at how work problems are resolved for 80% of the time.
Instrumental	
3. (R)	I do not feel my organization provides me with the necessary resources to be efficient in my job.
5.	My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.
11. (R)	At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.
14. (R)	I find it difficult to follow established organizational rules with what I have to work with.
18. (R)	The people I work with do not seem to approve of how I work.
Moral	
1.	I feel like my ethical morals are congruent with the organizations.
6.	I agree with approximately 90% of the values that define my organization.
17.	I feel loyal to my organization.
22.	My organization is performing as well as other Universities in delivering educational programs.
23.	My organization exemplifies what a University ought to be.

Composite scores were created for each of the three factors, based on the mean of the items which had their primary loadings on each factor. Internal consistency (Cronbach's Alpha, Table 21) for the full scale is .83 which is considered good (Field, 2009). All the sub-scales correlate highly with the full scale (Relational, .917; Instrumental, .881; Moral, .817) and correlate well with the other sub-scales (see Table 22). All correlations are significant (p<0.01). From the item total statistics (see Table 23) all factors contribute to the internal consistency of the scale (56% for relational, 41% for instrumental, and 57% for moral). This table also tells us that Cronbach's Alpha would decrease if any of the factors was removed from the scale.

Table 21: Reliability Statistics

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.846	3

Table 22: Correlation Matrix-Full Scale and Sub-Scales

Correlations

		Full_IILJS	R_Full	I_Full	M_Full
Full_IILJS	Pearson Correlation	1	.917**	.881**	.817**
	Sig. (2-tailed)		.000	.000	.000
	N	140	140	140	140
R_Full	Pearson Correlation	.917**	1	.688**	.652**
	Sig. (2-tailed)	.000		.000	.000
	N	140	140	140	140
I_Full	Pearson Correlation	.881**	.688**	1	.601**
	Sig. (2-tailed)	.000	.000		.000
	N	140	140	140	140
M_Full	Pearson Correlation	.817**	.652**	.601**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	140	140	140	140

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

Table 23: Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
R_Full	46.56	79.140	.749	.562	.721
I_Full	61.31	100.085	.716	.514	.728
M_Full	63.69	136.016	.683	.469	.809

As with the full scale, higher scores on the sub-scales represent a higher perceived level of institutional legitimacy. Descriptive Statistics are in Table 24. The highest score possible for the composite scale is 133. The highest score possible for relational legitimacy (Factor 1) is 63 and the mean value is 39.21. For instrumental legitimacy (Factor 2) the highest score possible is 35 and the mean value for this subscale is 24.47. For moral legitimacy (Factor 3) the highest score possible is 35 and the mean value is 22.09. The skewness and kurtosis are within the tolerable range for assuming

a normal distribution and examination of the histograms in Appendix H suggest that the distributions looked approximately normal. Instrumental legitimacy has a slight negatively skewed distribution which means this dimension was perceived to be legitimate by more employees. If percentages are applied to the sub-scales, legitimacy ratings by employees were: relational, 61% legitimate; instrumental, 68% legitimate, and; moral, 63% legitimate.

Table 24: Descriptive Statistics for Sub-Scales

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
R_Full	140	21	56	39.21	6.858	-.421	.205	-.223	.407
I_Full	140	5	35	24.47	5.829	-.650	.205	.576	.407
M_Full	140	6	33	22.09	4.076	-.513	.205	1.224	.407
Valid N (listwise)	140								

4.4. Test - Multiple Regression

In this study, two variables, IILJ and PWB, were used as predictors of two outcomes, SA and presenteeism. It was proposed that employee's IILJ would predict SA and presenteeism at a PSEI during a time of institutional change. It was also proposed that employees' PWB would moderate this relationship. Table 25 summarizes the propositions posed in Chapter 2. Individual institutional legitimacy judgements (IILJs) was proposed to be negatively related to SA and positively related to presenteeism. PWB was proposed to be negatively related to both outcomes. The moderation or interaction effect was to change the direction of the correlation with SA (or buffer the negative correlation with SA so it would be less negative). The proposed moderation effect on presenteeism was a change to a negative correlation.

Table 25: Summary of Propositions

Predictors	Model 1		Model 2	
	Outcomes		Outcomes	
	Sickness Absence	Presenteeism	Sickness Absence	Presenteeism
IILJs	-ve correlation	+ve correlation		
PWB	-ve correlation	-ve correlation		
IILJs*PWB (Interaction)			Change direction to less -ve or to +ve	Change direction to -ve correlation

4.4.1. Assumption Testing

Before beginning the main analysis seven main assumptions were tested to ensure the data were suitable for a multiple regression analysis. The assumptions include: outliers; collinearity of data; independent errors; random normal distribution of errors; homoscedasticity; linearity of data, and; non-zero variance (Field, 2009).

4.4.1.1. Outliers

The Minimum and the Maximum values (see Table 26 & 27) for the standardized residual (Std. Residual) are within the parameters of -3.29 and 3.29 for all the cases with the exception of case 114 for SA and cases 16, 30, 45, 72, 103, 117, 126, and 137 for presenteeism (Tabachnick & Fidell, 2007). According to Field (2009), it is reasonable to expect about 5% to have standardized residuals outside the limits of ±3 (which is the default in SPSS). The sample for presenteeism is within 1% of what would be expected. The ZRE in the SPSS output, which contains the standardized residuals for each participant, confirmed the extremes identified in the SPSS casewise diagnostics for the data. Because both outcomes are expected to be highly variable in relation to employee's decision making processes about work absence or attendance when sick the usual process of removing outlier data was viewed with caution. The method of data transformation was employed to better identify and

confirm the outliers and also help put them in line before committing to a decision to remove these cases (Howell, 2007; Tabachnick & Fidell, 2007). Transformations involved applying a mathematical function to each data point in SPSS. The choice of transformation method (that is, converting variables to ranks) in this data was logarithms (Log 10^9) because the variance increased with the mean (Tabachnick & Fidell, 2007). In this case the method helps normalize the data and renders the plot distributions easier to interpret (Tabachnick & Fidell, 2007). When the data points were transformed extreme values were no longer problematic (see Table 28) and all the cases were retained in the data. Further, because there were several high values for presenteeism in the data (more than the extremes reported here) they created a "grouping" that supported their retention in the analysis. As discussed in Chapter 2, the literature review, the variability of the values fits with the theoretical underpinnings of the concepts.

Table 26: Residual Statistics- SA

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.38	4.21	3.11	.346	140
Std. Predicted Value	-2.116	3.171	.000	1.000	140
Standard Error of Predicted Value	.410	1.367	.553	.173	140
Adjusted Predicted Value	2.31	4.23	3.12	.351	140
Residual	-3.624	27.102	.000	4.832	140
Std. Residual	-.747	5.588	.000	.996	140
Stud. Residual	-.756	5.616	.000	1.001	140
Deleted Residual	-3.709	27.374	-.005	4.882	140
Stud. Deleted Residual	-.755	6.371	.014	1.069	140
Mahal. Distance	.000	10.056	.993	1.513	140
Cook's Distance	.000	.159	.005	.018	140
Centered Leverage Value	.000	.072	.007	.011	140

a. Dependent Variable: Q32-SA

[9] The logarithm, x to log base 10 of x, or x to log base e of x (ln x), or x to log base 2 of x, is a strong transformation with a major effect on distribution shape. It is commonly used for reducing right skewness and is often appropriate for measured variables (Yeo and Johnson, 2000).

Table 27: Residual Statistics- Presenteeism

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5.16	62.15	27.97	10.777	140
Std. Predicted Value	-2.116	3.171	.000	1.000	140
Standard Error of Predicted Value	5.184	17.290	6.999	2.186	140
Adjusted Predicted Value	-5.24	58.28	27.89	10.900	140
Residual	-48.265	253.837	.000	61.106	140
Std. Residual	-.787	4.139	.000	.996	140
Stud. Residual	-.800	4.223	.001	1.005	140
Deleted Residual	-49.894	264.240	.082	62.187	140
Stud. Deleted Residual	-.799	4.509	.013	1.048	140
Mahal. Distance	.000	10.056	.993	1.513	140
Cook's Distance	.000	.365	.009	.037	140
Centered Leverage Value	.000	.072	.007	.011	140

a. Dependent Variable: Q33-Presen

Table 28: Data - ZResiduals

Case	Outcome Var	Std. Residual Min-Max	Data-ZRes*	TransfData-ZRes*
114	SA	-.747-5.588	5.30979	2.66619
16	Pres	-.787-4.130	3.66697	2.34450
30	Pres	-.787-4.130	3.44435	2.47011
45	Pres	-.787-4.130	3.60741	2.35826
72	Pres	-.787-4.130	3.90083	2.72001
103	Pres	-.787-4.130	4.13907	3.11739
117	Pres	-.787-4.130	3.61932	2.44990
126	Pres	-.787-4.130	3.73845	2.44577
137	Pres	-.787-4.130	3.59550	1.81883

* Not <-3.29 or >3.29 (Tabachnick & Fidell, 2007)

In the final analysis of assumptions it is important to remember that outliers can have a large influence on Pearson's correlations typically used in regression modelling. If the other assumptions are not met, non-parametric analysis may be required for this data set rather than parametric regression (Field, 2009).

4.4.1.2. Collinearity

Tests to see if data (original and transformed) met the assumptions of collinearity indicated that Multicollinearity was not a concern for this data. No perfect linear relationship exists between the

two predictors. The IILJS and PWB scores for SA are: Tolerance=.830, VIF=1.204. The Tolerance and VIF scores for Pres and are also the same. The VIF value should not be >10 and the Tolerance should not be <0.2 (Field, 2009). For these data the VIF is very close to 1 and this confirms that collinearity is not a problem for the models (Field, 2009). Refer to Table 29 & 30 for these statistics.

Table 29: SA Coefficient Data

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.123	2.427		2.111	.037					
	Full_IILJS	-.023	.028	-.071	-.840	.402	-.071	-.071	-.071	1.000	1.000
2	(Constant)	3.396	3.236		1.050	.296					
	Full_IILJS	-.034	.031	-.102	-1.097	.274	-.071	-.093	-.093	.830	1.204
	PWB Score	.056	.069	.075	.808	.420	.033	.069	.069	.830	1.204

a. Dependent Variable: Q32-SA

Table 30: Presenteeism Coefficient Data

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	90.637	30.688		2.954	.004					
	Full_IILJS	-.731	.353	-.174	-2.072	.040	-.174	-.174	-.174	1.000	1.000
2	(Constant)	117.375	40.873		2.872	.005					
	Full_IILJS	-.573	.387	-.136	-1.480	.141	-.174	-.125	-.124	.830	1.204
	PWB Score	-.861	.870	-.091	-.990	.324	-.147	-.084	-.083	.830	1.204

a. Dependent Variable: Q33-Presen

Given a state of no perfect Multicollinearity the predictor variables should not correlate highly and the variance proportions of eigenvalues would vary between 0 and 1 on different dimensions (Field, 2009). In Tables 31 & 32 each of the predictors in the models is distributed across different dimensions (or eigenvalues). IILJS has 99% of its variance on dimension 2 and PWB has 84% of its variance on dimension 3.

Table 31: Collinearity Diagnostics - SA

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Full IILJS	PWB Score
1	1	1.986	1.000	.01	.01	
	2	.014	11.756	.99	.99	
2	1	2.975	1.000	.00	.00	.00
	2	.016	13.699	.18	1.00	.16
	3	.010	17.567	.82	.00	.84

a. Dependent Variable: Q32-SA

Table 32: Collinearity Diagnostics - Presenteeism

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Full IILJS	PWB Score
1	1	1.986	1.000	.01	.01	
	2	.014	11.756	.99	.99	
2	1	2.975	1.000	.00	.00	.00
	2	.016	13.699	.18	1.00	.16
	3	.010	17.567	.82	.00	.84

a. Dependent Variable: Q33-Presen

4.4.1.3. Independent Errors

The Model Summary table (see Table 33 & 35) and the Durbin-Watson value are important to determine if the assumption of independent errors is met. If the residual terms are uncorrelated (or independent) the Durbin-Watson values can range between 0 and 4 but the closer the value is to 2 the better (Field, 2009). Generally, if the Durbin-Watson is < 1 or >3 then it is significantly different from 2 and the assumption has not been met (Field, 2009). The data for this study met the assumption of independent errors with a Durbin-Watson value of 1.842 (SA) and 2.099 (Pres). This is provided for the transformed data as well with a TrSA Durbin-Watson value of 1.714 and a Trpresenteeism value of 2.096 (see Table 34 & 36). It is confirmed that this assumption has been met.

Table 33: Model Summary - SA

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.099[a]	.010	-.005	4.856	.010	.678	2	137	.509	
2	.116[b]	.013	-.008	4.865	.004	.494	1	136	.483	1.842

a. Predictors: (Constant), PWB Score, Full_IILJS

b. Predictors: (Constant), PWB Score, Full_IILJS, IILJSPWB

c. Dependent Variable: Q32-SA

Table 34: Model Summary - TrSA

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.026[a]	.001	-.020	.37555	.001	.031	2	96	.969	
2	.214[b]	.046	.016	.36886	.045	4.515	1	95	.036	1.714

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrSA

Table 35: Model Summary - Presenteeism

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.193[a]	.037	.023	61.331	.037	2.636	2	137	.075	
2	.198[b]	.039	.018	61.492	.002	.285	1	136	.594	2.099

a. Predictors: (Constant), PWB Score, Full_IILJS

b. Predictors: (Constant), PWB Score, Full_IILJS, IILJSPWB

c. Dependent Variable: Q33-Presen

Table 36: Model Summary - TrPresenteeism

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.374[a]	.140	.125	.56544	.140	9.446	2	116	.000	
2	.399[b]	.159	.137	.56148	.019	2.642	1	115	.107	2.096

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrPres

4.4.1.4. Random Normality Distributed Errors, Homoscedasticity, and Linearity

The next three tests are combined because they share the same output used to assess them. The residuals for IILJS are fairly normally distributed. When looking at the histograms a few employees

have high legitimacy judgements and some have very low legitimacy judgements but the majority of employees have similar legitimacy judgements somewhere around the half way mark of the scale. The IILJS data are slightly skewed in a negative direction. The left tail is slightly longer and the distribution is heavier on the right of the histogram. This means most employees judged BCU as having slight legitimacy (as opposed to illegitimacy) (See Figure 12). The PWB data have also produced a negatively skewed distribution i.e., the majority of the employees have quite average to high PWB and only a few have very low PWB (See Figure 13). The left tail is slightly longer and the distribution is skewed on the left. The SA data has produced very positively skewed or right tailed distribution (left position on histogram) with the majority of people having quite low SA days and a few employees had quite high SA days. There are a very small proportion of employees who have a few more sick days than the majority in the middle, and then some who have quite a few sick days on the right side of the figure. Figures 14 and 15 show the histograms for SA and TrSA respectively. The right sided peak is not as pronounced as it is for presenteeism but the pattern is observed. The presenteeism scores are very interesting because the distribution is clearly not normal. It looks bimodal with one large peak at the left side of the figure indicating a positive skew (right- screwed or right tailed), a few values in between, and a smaller peak at the right side of the figure. Figures 16 and 17 show the histograms for presenteeism and Trpresenteeism respectively. These distribution observations correspond with information from the table of descriptive statistics (Skewness= IILJS, -.482; PWB, -1.871; SA, 3.406; Pres, 3.112) (See Table 37).

Figure 12: IILJ Histogram

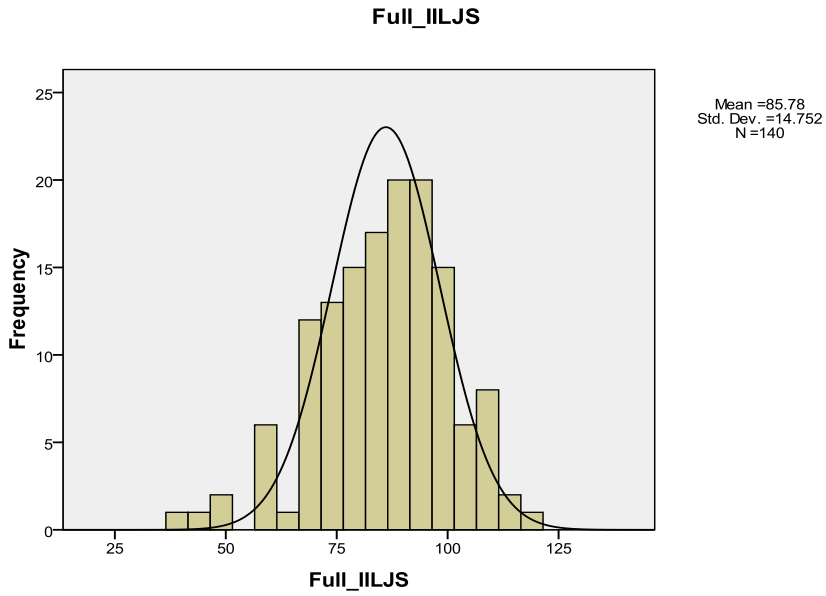


Figure 13: PWB Histogram

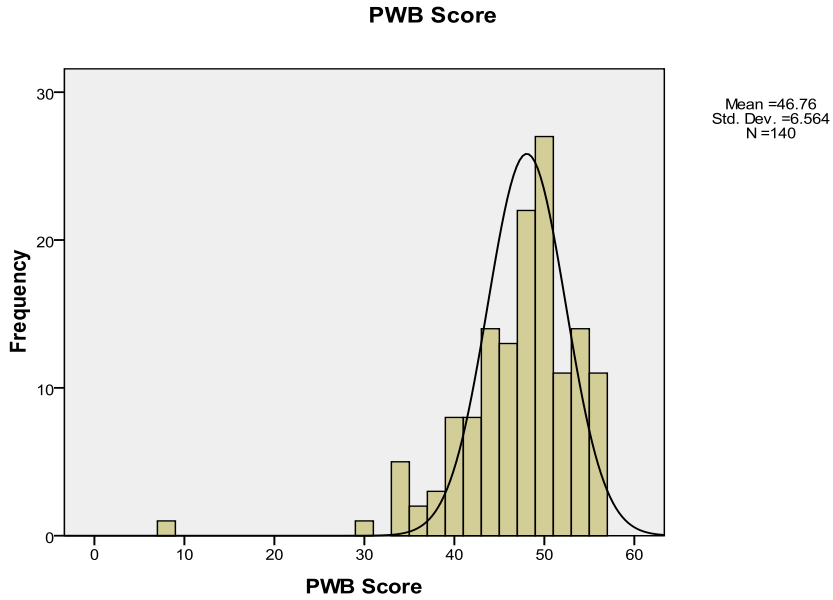


Figure 14: SA Histogram

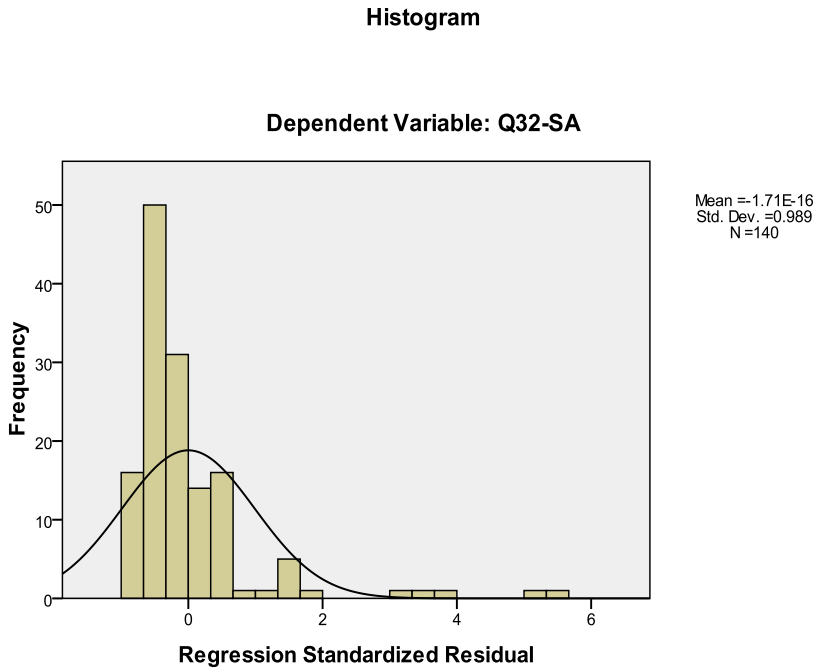


Figure 15: TrSA Histogram

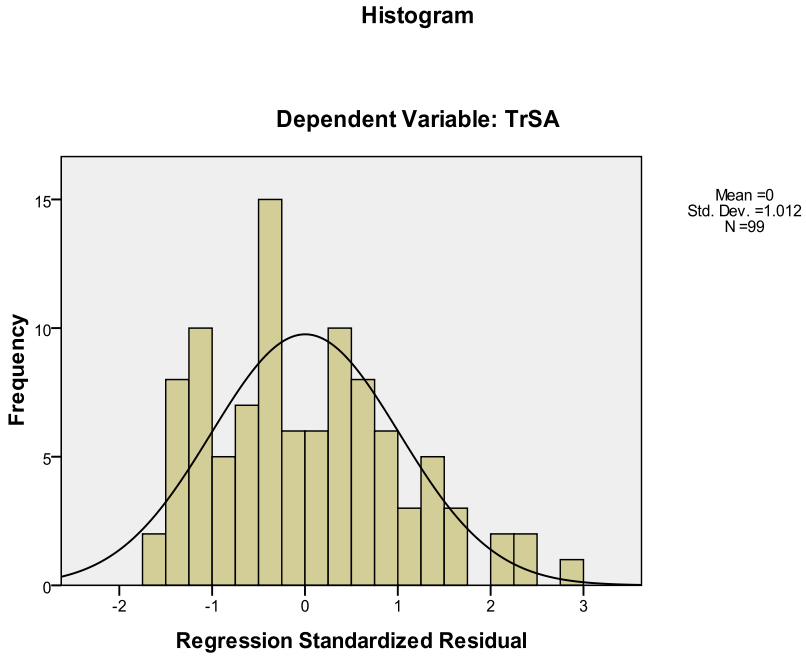


Figure 16: Presenteeism Histogram

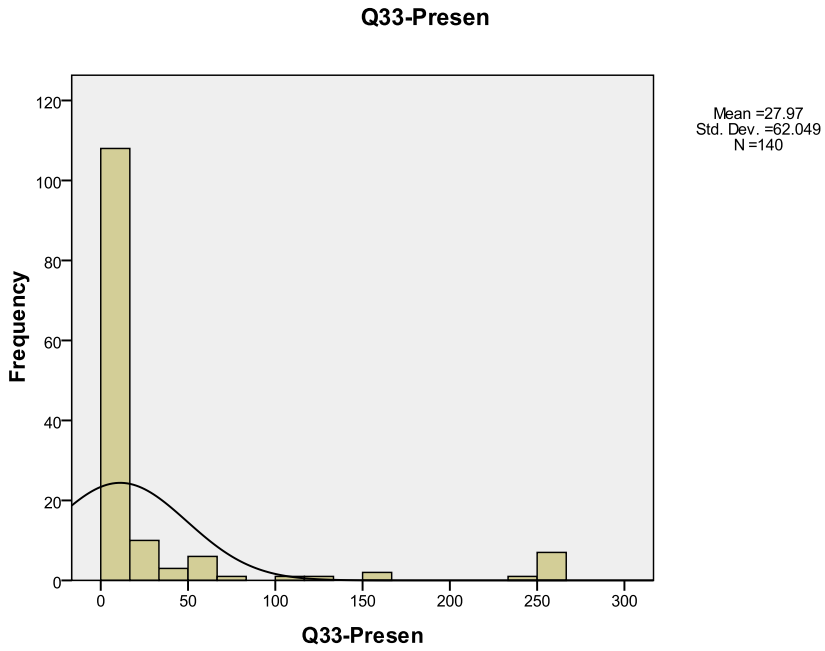


Figure 17: TrPresenteeism Histogram

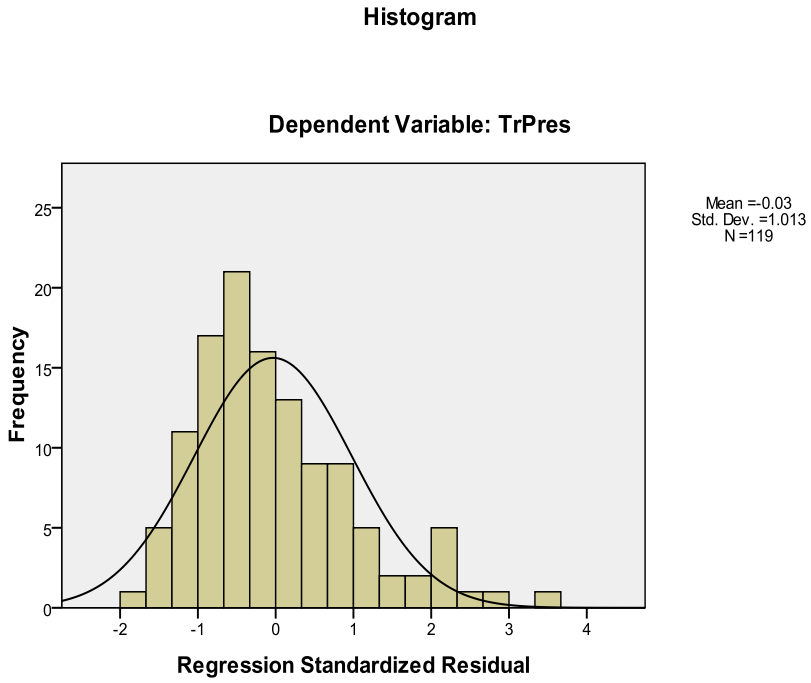


Table 37: Variable Statistics

Statistics

		Full IILJS	PWB Score	Q32-SA	Q33-Presen
N	Valid	140	140	140	140
	Missing	0	0	0	0
Mean		85.78	46.76	3.11	27.97
Std. Error of Mean		1.247	.555	.409	5.244
Median		87.00	48.00	2.00	5.00
Mode		86[a]	49	0	0
Std. Deviation		14.752	6.564	4.844	62.049
Variance		217.612	43.088	23.469	3850.100
Skewness		-.482	-1.871	3.406	3.112
Std. Error of Skewness		.205	.205	.205	.205
Kurtosis		.361	7.904	14.037	8.711
Std. Error of Kurtosis		.407	.407	.407	.407
Range		78	48	30	260
Minimum		39	8	0	0
Maximum		117	56	30	260

a. Multiple modes exist. The smallest value is shown

The Normal P-P Plot of Regression Standardized Residual (Observed Cum Prob) for SA and presenteeism (Figures 18 & 20) tells the same story. The two peaks, albeit one stronger than the other, are evidenced for both of the outcomes. Notice that SA has residuals connecting relatively consistently in the middle of the two end peaks whereas the data are weak in between the higher peaks for presenteeism. In the Normal P-P Plot the dots are not running diagonally across the screen on the line therefore the assumption of normally distributed residuals (or errors) are not met. The tests conducted with the transformed data (TrSA and TrPres) found in Figure 19 & 21, confirmed the lack of normality in the distribution. SA actually appears to have at least three distinct groupings with reduced frequency shown between the three main peaks. The data distribution for presenteeism displays a bimodal pattern again.

Figure 18: Normal P-P Plot - SA

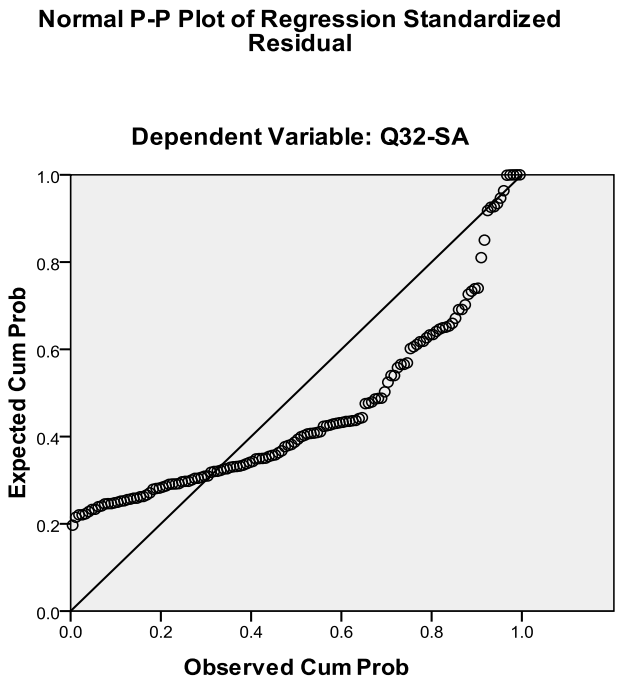


Figure 19: Normal P-P Plot - TrSA

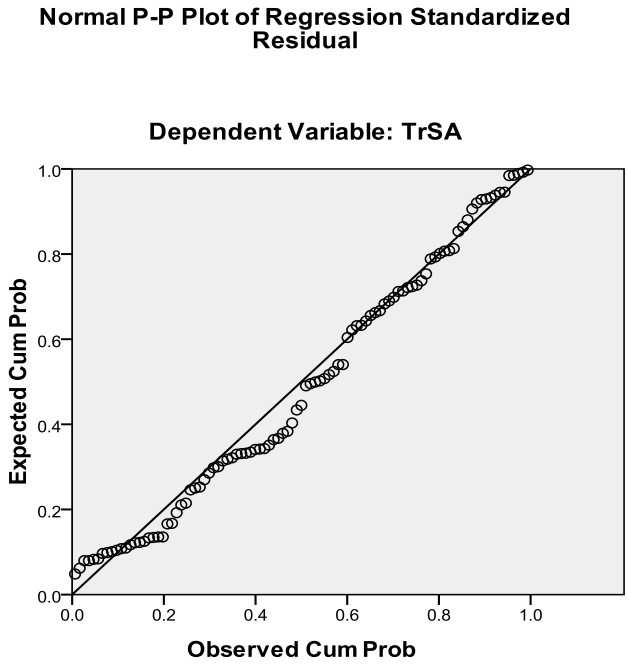


Figure 20: Normal P-P Plot - Presenteeism

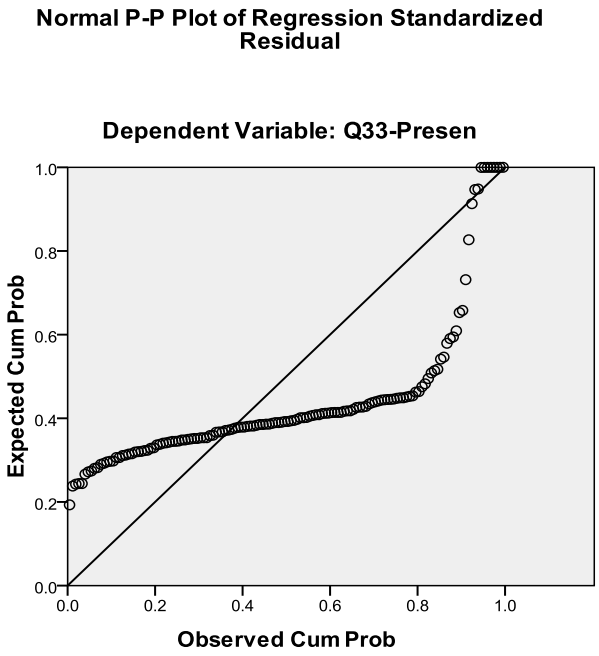
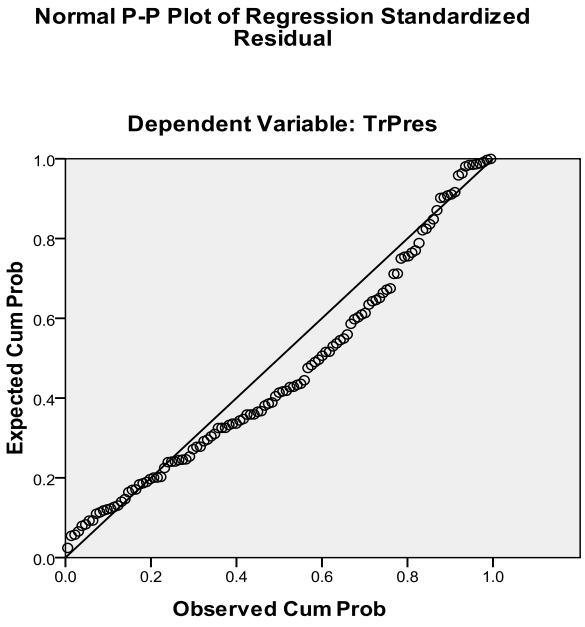


Figure 21: Normal P-P Plot - TrPresenteeism



As can be observed, when attempting to correlate skewed variables, a log or other transformation method often makes the underlying relationship between two variables clearer and patterns become more discernible (Field, 2009).

Next, the assumption tests of Homoscedacity and Linearity are checked with scatterplots and the Kolmogorov-Smirnov and Shapiro-Wilk tests. These latter two tests compare the scores in the sample to normally distributed scores with the same mean and standard deviation scores (Field, 2009). The test is significant ($p < 0.05$) for both outcomes therefore the distribution of each outcome is significantly different from a normal distribution and is non-normal (see Table 38 & 39). The deviation from normality reflects the bimodal distribution found for presenteeism and the positively skewed distribution observed in the SA values. The Kolmogorov-Smirnov and Shapiro-Wilk tests indicate the deviations are large enough to be important and are significant.

Table 38 : Tests of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Full_IILJS	.065	140	.200*	.982	140	.067
PWB Score	.132	140	.000	.879	140	.000
Q32-SA	.260	140	.000	.612	140	.000
Q33-Presen	.348	140	.000	.460	140	.000

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Table 39: Tests of Normality - Transformed Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TrFull_IILJS	.101	140	.001	.931	140	.000
TrPWB	.175	140	.000	.619	140	.000
TrSA	.144	99	.000	.920	99	.000
TrPres	.136	119	.000	.918	119	.000

a. Lilliefors Significance Correction

The scatterplots for the data (original and transformed) show there is a non-linear relationship between the outcome and the predictor (See Tables 22 to 25). Since the data are not normally distributed, the observed values do not fall along a straight line and deviate quite noticeably from a straight line (which represents normality). In other words, the variances in this data do not hold stable. The dots are not randomly and evenly dispersed throughout the plot. The scatterplot of standardized predicted values (or residuals) shows that the data did not meet the assumption for Homogeneity of variance and Linearity.

Figure 22: Scatterplot SA

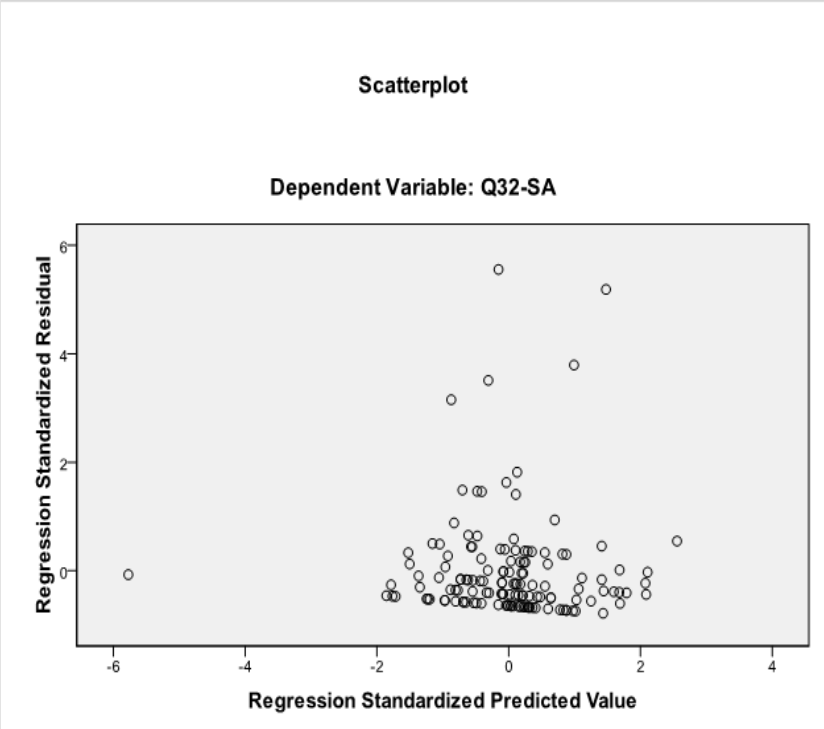


Figure 23: Scatterplot TrSA

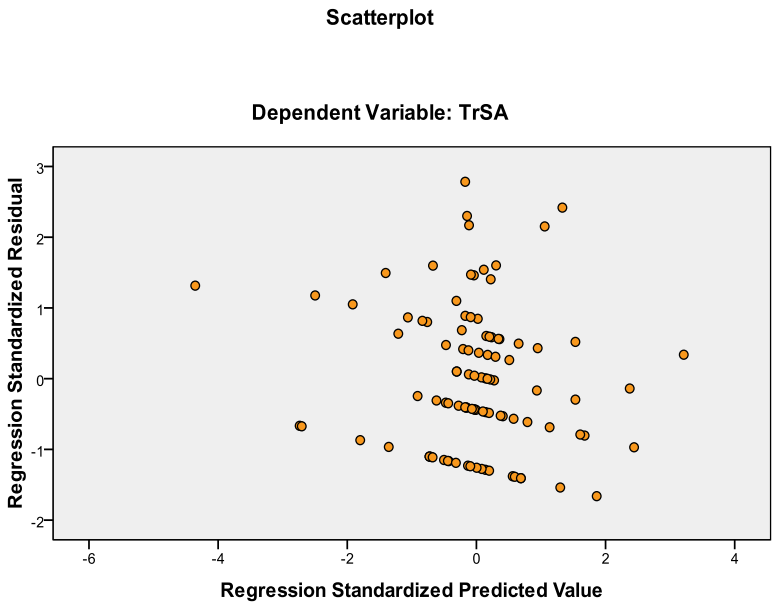


Figure 24: Scatterplot Presenteeism

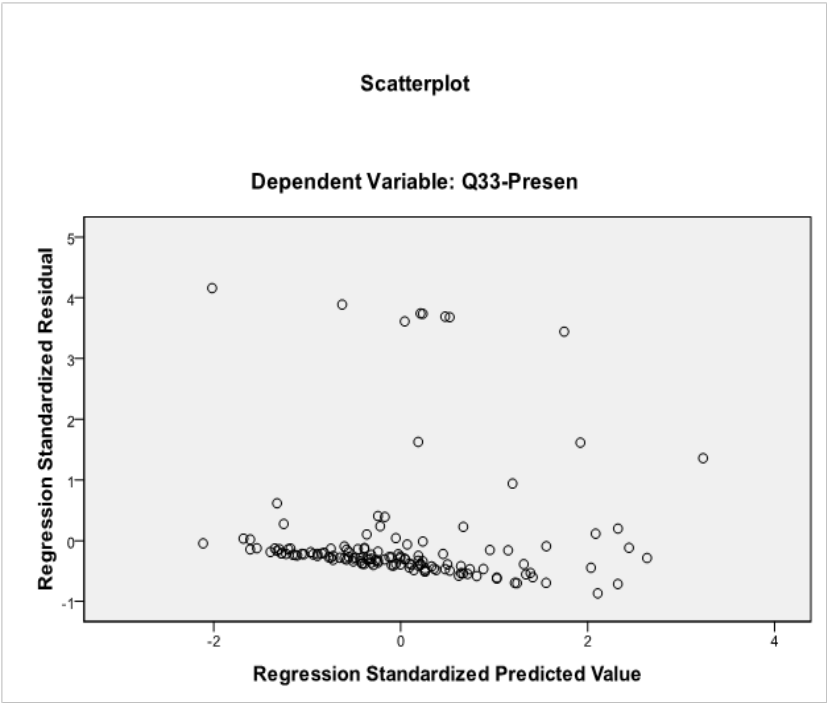
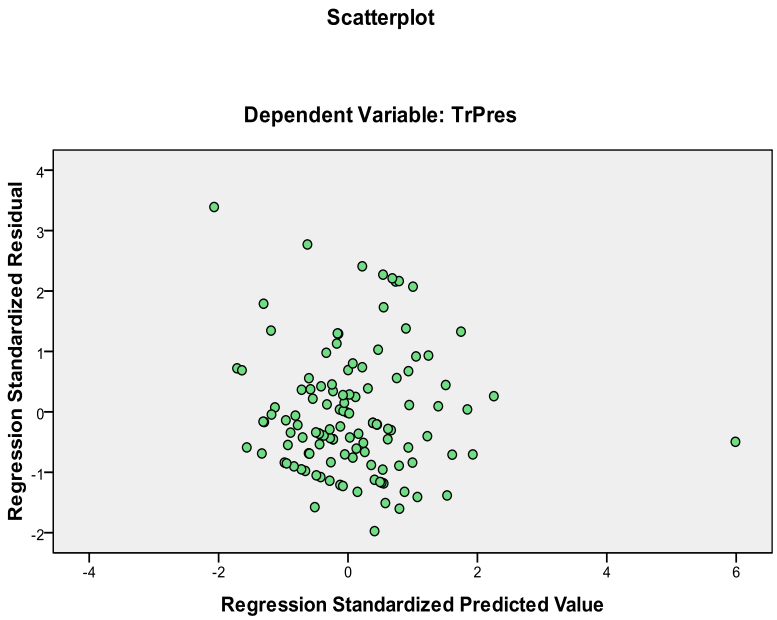


Figure 25: Scatterplot TrPresenteeism



It is noteworthy that the deviation is similar for both of the outcomes which is consistent with the significance of the Kolmogorov-Smirnov and Shapiro-Wilk tests found in Table 38. When the data are transformed the scatter plots show some improvement in Linearity, however, the distribution is still not normal.

4.4.1.5. Non-Zero Variances

Under the heading variance in the Descriptive Statistics Table (Table 40) all the values are over zero and show variance in value (Full_IILJS, Variance= 217.612; PWB variance= 43.088; SA variance= 23.469; Presenteeism variance= 3850.100) (Field, 2009). SA exhibits the least variance. The non-zero assumption has been met.

Table 40: Variable Variance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Full_IILJS	140	39	117	85.78	14.752	217.612
PWB Score	140	8	56	46.76	6.564	43.088
Q32-SA	140	0	30	3.11	4.844	23.469
Q33-Presen	140	0	260	27.97	62.049	3850.100
Valid N (listwise)	140					

The summary of the results of the assumption testing is below in Table 41.

Table 41: Assumption Tests Summary

ASSUMPTION TEST	MET	NOT MET
1) OUTLIERS	√ (WITH TRANSFORMATION)	
2) COLLINEARITY	√	
3) INDEPENDENT ERRORS	√	
4) RANDOM NORMALITY DISTRIBUTED ERRORS		√
5) HOMOSCEDASTICITY		√
6) LINEARITY		√
7) NON-ZERO VARIANCE	√	

A final check on the normality of the data is to see if the skewness statistics are greater than two times the Std error. If they are then the normality of the data is in question. As expected, based on the previous findings, all the skewness statistics are greater than two times the Std error (see Table 42 & 43). The data distribution is not normal. Further, in Table 42 the skewness for each variable was examined and the values for SA and Presenteeism are greater than the absolute value of one, suggesting non- normal distributions for the outcome variables.

Table 42: Skewness Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Full_IILJS	140	39	117	85.78	14.752	217.612	-.482	.205
PWB Score	140	8	56	46.76	6.564	43.088	-1.871	.205
Q32-SA	140	0	30	3.11	4.844	23.469	3.406	.205
Q33-Presen	140	0	260	27.97	62.049	3850.100	3.112	.205
Valid N (listwise)	140							

Table 43: Skewness Greater than 2X Standard Error

Descriptive Statistics			
Variable	**Std error*2**	**Skewness**	**(All>0.410)**
IILJ	0.410	-0.482	not normal
PWB	0.410	-1.871	not normal
SA	0.410	3.406	not normal
Pres	0.410	3.112	not normal

In sum, all the assumptions have not been met and the data exhibits deviation from normality. Therefore using a parametric test such as regression is not appropriate because the assumption of normality is not tenable. In these circumstances, Field (2009) recommends a non-parametric test such as Spearman's rank correlation coefficient as a means of testing the propositions of interest.

4.4.2. Parametric and Non-Parametric Statistical Test

Given the choice between Pearson's or Spearman's methods when normality of data is questioned, Tabachnick and Fidell (2007) recommend removing outliers if appropriate or making transformation adjustments before applying a non-parametric method. Although there were several outliers in the data (in particular for presenteeism), based on theoretical analysis these extreme cases were viewed as providing important data for the particular variables studied. The transformation provided more clarity to the data therefore conducting both the multiple regression with the transformed data and the Spearman's Rho method was seen as beneficial for comparative purposes. The results are reported below in this order.

4.4.2.1. Data Transformation

Using the Log10 transformation function in SPSS a multiple regression was conducted to see if TrIILJs and TrPWB (independently and combined) predicted the outcomes TrSA and Trpresenteeism. The log transformation was used in the assumption testing to make the skewed distributions less skewed. It also helped to make the patterns within the data more discernible and to meet some of the assumptions of the inferential statistics.

The descriptive statistics for the transformed data are presented in Tables 44 and 45. The transformed data are robust when aligning outliers because everything is converted to ranks (Tabachnick and Fidell, 2007). The average number of sick days (SA) in the last year is log .4641 (anti-logarithm of the mean =2.91 days) (*SD* = .37) and the average number of presenteeism days in the last year is log 1.0091 (anti-logarithm of the mean=10.21 days) (*SD* = .61). The mean of the full or composite IILJ Scale is 1.9262 (anti-logarithm of the mean= 84.37) (*SD* = .08) out of the highest score possible, 133. The average score on PWB is 1.6636 (anti-logarithm of the mean= 46.09) (*SD* = .09) out of a total score of 56 (the highest possible). The N is reduced in the data transformation process (N=99 for TrSA and N=119 for TrPresenteesim) due to transformations being parametized by a non-negative (and non-zero) values only (Bland & Altman, 1996). This rendered quite a reduction in the values (particularly for SA), i.e., calculating the mean is out of 99 cases vs. 140. Any self-report values of “0” for either of the outcomes would be excluded (Log10 for 0=negative infinity). This in itself supports conducting a non-parametric method such as Spearman’s Rho for statistical comparison.

Table 44: Descriptive Statistics, Transformed SA Data

Descriptive Statistics

	Mean	Std. Deviation	N
TrSA	.4641	.37182	99
TrFull_IILJS	1.9262	.08184	140
TrPWB	1.6636	.08551	140
TrIILJTrPWB	3.2065	.24244	140

Table 45: Descriptive Statistics, Transformed Presenteeism Data

Descriptive Statistics

	Mean	Std. Deviation	N
TrPres	1.0091	.60456	119
TrFull_IILJS	1.9262	.08184	140
TrPWB	1.6636	.08551	140
TrIILJTrPWB	3.2065	.24244	140

The Correlation matrix shows three things (Table 46 and 47). The first is the value of the Pearson's correlation coefficient between all the variables. TrSA is weakly correlated with all of the predictors. It has a correlation of -.020 with TrIILJS; .010 for TrPWB, and; -.010 with TrIILJS*TrPWB. Trpresenteeism has a correlation of -.302 with TrIILJS; -.299 for TrPWB, and; -.377 for TrIILJS*TrPWB. Thus, -.302, -.299, and -.377 represent low-moderate negative correlations between TrPresenteeism and the predictors IILJS, PWB, and IILJS*PWB respectively (independent and combined). Second, the 1-tailed significance (significant, $p<0.001$) of each correlation is reported. The data correlation for TrSA with the predictors is not significant. Alternately the correlation data for Trpresenteeism is significant for all predictors in the model (significant, $p <.001$). Finally, the number of cases contributing to the correlations is noted. Again, since the logarithm transformation only recognizes positive or non-zero values (the logarithm for 0 is negative infinity), the N is substantially reduced (N=99 for TrSA and N=119 for Trpresenteeism).

Table 46: Correlations, TrSA

Correlations

		TrSA	TrFull_IILJS	TrPWB	TrIILJTrPWB
Pearson Correlation	TrSA	1.000	-.020	.010	-.010
	TrFull_IILJS	-.020	1.000	.292	.746
	TrPWB	.010	.292	1.000	.854
	TrIILJTrPWB	-.010	.746	.854	1.000
Sig. (1-tailed)	TrSA	.	.424	.461	.460
	TrFull_IILJS	.424	.	.000	.000
	TrPWB	.461	.000	.	.000
	TrIILJTrPWB	.460	.000	.000	.
N	TrSA	99	99	99	99
	TrFull_IILJS	99	140	140	140
	TrPWB	99	140	140	140
	TrIILJTrPWB	99	140	140	140

Table 47: Correlations, TrPresenteeism

Correlations

		TrPres	TrFull_IILJS	TrPWB	TrIILJTrPWB
Pearson Correlation	TrPres	1.000	-.302	-.299	-.377
	TrFull_IILJS	-.302	1.000	.292	.746
	TrPWB	-.299	.292	1.000	.854
	TrIILJTrPWB	-.377	.746	.854	1.000
Sig. (1-tailed)	TrPres	.	.000	.000	.000
	TrFull_IILJS	.000	.	.000	.000
	TrPWB	.000	.000	.	.000
	TrIILJTrPWB	.000	.000	.000	.
N	TrPres	119	119	119	119
	TrFull_IILJS	119	140	140	140
	TrPWB	119	140	140	140
	TrIILJTrPWB	119	140	140	140

If the improvement due to fitting the regression model is greater than the inaccuracy within the model the value of *F* will be greater than 1 and SPSS calculates the exact probability of obtaining the value of *F* by chance (Field, 2009). A large *F* is found in a good model (Field, 2009). The ANOVA (Analysis Of Variance) output shows that the model for TrSA is not significant (Table 48). However, the model for TrPresenteeism (Table 49) is significantly better at predicting the outcome than using the mean. For the first model the *F*-ratio is 9.446 ($p < 0.001$) and for the second model the *F*-ratio is 7.267 ($p < 0.001$). Attaining these values is unlikely to have happened by chance.

Table 48: ANOVA, TrSA

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.009	2	.004	.031	.969[a]
	Residual	13.540	96	.141		
	Total	13.549	98			
2	Regression	.623	3	.208	1.527	.213[b]
	Residual	12.926	95	.136		
	Total	13.549	98			

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrSA

Table 49: ANOVA, TrPresenteeism

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.040	2	3.020	9.446	.000[a]
	Residual	37.088	116	.320		
	Total	43.128	118			
2	Regression	6.873	3	2.291	7.267	.000[b]
	Residual	36.255	115	.315		
	Total	43.128	118			

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrPres

The model summary table (Table 50 and 51) indicates whether the model is successful in predicting the outcomes SA and presenteeism. Using the enter method it was found that each of the models (IILJS and PWB, and; IILJS*PWB) explains a significant amount of the variance in the value of presenteeism but not SA. Statistical results (found in the ANOVA and Model Summary tables) for the outcome presenteeism are:

- Model 1-($F(2,116)=9.446$, $p<.001$, $R^2=.14$, $R^2_{adjusted}= .13$)
- Model 2- ($F(3,115)=7.267$, $p<.001$, $R^2=.16$, $R^2_{adjusted}=.14$)

The model summary for TrSA (Table 50) includes R^2 which shows how much of the outcome variability is attributed to the predictor. The variability in the value of SA is negligible for the first model (.1%). However, the interaction effects in model 2 (IILJS*PWB) produce an R^2 of .046 which

means it accounts for 5% of the variation in the SA value. This can be attributed to the relationship PWB has with SA.

Table 50: Model Summary, TrSA

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.026[a]	.001	-.020	.37555	.001	.031	2	96	.969	
2	.214[b]	.046	.016	.36886	.045	4.515	1	95	.036	1.714

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrSA

For the outcome Trpresenteeism, model 1 has a R^2 value of .140 (Table 51). This means that model 1 accounts for 14% of the variation in presenteeism. In model 2 for the interaction effects, the value increases to .159 or it accounts for 16%of the variance in presenteeism. This means that, as compared to model 1, model 2 accounts for 2% more of the variance in presenteeism. The interaction effect has not added substantially to the variance in the presenteeism value.

Table 51: Model Summary, TrPresenteeism

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.374[a]	.140	.125	.56544	.140	9.446	2	116	.000	
2	.399[b]	.159	.137	.56148	.019	2.642	1	115	.107	2.096

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: TrPres

The coefficient analysis shows that the predictors IILJS and PWB did not significantly predict the value of SA (See Table 52). The interaction effects (IILJS*PWB) on SA in model 2 however were significant at $p<.05$. The analysis for each predictive model is as follows:

- Model 1- (β= .017, t(99)= .16, ns
- Model 2- (β= -6.99, t(99)= -2.13, $p<.05$)

Table 52: Coefficients, TrSA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.555	1.024		.542	.589	-1.477	2.586					
	TrFull_IILJS	-.112	.485	-.025	-.230	.818	-1.074	.850	-.020	-.024	-.024	.915	1.093
	TrPWB	.075	.464	.017	.161	.872	-.846	.996	.010	.016	.016	.915	1.093
2	(Constant)	-33.475	16.047		-2.086	.040	-65.331	-1.618					
	TrFull_IILJS	17.148	8.137	3.774	2.107	.038	.994	33.302	-.020	.211	.211	.003	319.417
	TrPWB	21.221	9.962	4.880	2.130	.036	1.443	40.999	.010	.214	.213	.002	522.691
	TrIILJTrPWB	-10.727	5.048	-6.994	-2.125	.036	-20.749	-.705	-.010	-.213	-.213	.001	1078.969

a. Dependent Variable: TrSA

The coefficient analysis shows that the predictors in model 1 did significantly predict the value of presenteeism at $p<.05$ (Table 53). The interaction effects in model 2 however were not significant. The analysis for each predictive model is as follows:

- Model 1- (β= -.23, t(119)= -2.56, $p<.05$)
- Model 2- (β= -4.57, t(119)= , -1.63, *ns*)

Table 53: Coefficients, TrPresenteeism

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	7.065	1.404		5.030	.000	4.283	9.846					
	TrFull_IILJS	-1.735	.665	-.235	-2.609	.010	-3.052	-.418	-.302	-.235	-.225	.915	1.093
	TrPWB	-1.631	.637	-.231	-2.562	.012	-2.892	-.370	-.299	-.231	-.221	.915	1.093
2	(Constant)	-29.046	22.260		-1.305	.195	-73.139	15.047					
	TrFull_IILJS	16.580	11.288	2.245	1.469	.145	-5.778	38.939	-.302	.136	.126	.003	319.417
	TrPWB	20.809	13.820	2.943	1.506	.135	-6.566	48.184	-.299	.139	.129	.002	522.691
	TrIILJTrPWB	-11.383	7.003	-4.565	-1.625	.107	-25.255	2.489	-.377	-.150	-.139	.001	1078.969

a. Dependent Variable: TrPres

4.4.2.2. Constants and Centering the Data

During the Log transformation the sample size dropped dramatically from N=140 to N=99 for SA and N=119 for presenteeism. This reduction could potentially change results and render them unreliable. To overcome this problem a *constant* was added to all the cases. This ensures all values are greater than zero before applying the transformation which allows all data to be analyzed (N=140). Once the transformation was completed with all cases the regression model was re-run. The SPSS output results of the TrConstant regression are below. Further investigation revealed that the direction of the relationship is consistent with the previous Log transformation results and correlations have increased slightly when all the cases are included from the study sample. Table 54-58 refer to the values of the correlation between the predictors in model 1 and model 2 with the

outcome SA. Table 59-63 show the values of the correlation between the predictors in model 1 and model 2 with the outcome presenteeism.

Table 54: Descriptive Statistics, TrConstant SA

Descriptive Statistics

	Mean	Std. Deviation	N
Q32TrSAconst	.3017	.47274	140
TrFull_llLJS	1.9262	.08184	140
TrPWB	1.6636	.08551	140
TrllLJTrPWB	3.2065	.24244	140

Table 55: Correlations TrConstant SA

Correlations

		Q32Tr SAconst	TrFull llLJS	TrPWB	TrllLJTrPWB
Pearson Correlation	Q32TrSAconst	1.000	-.146	.040	-.052
	TrFull_llLJS	-.146	1.000	.292	.746
	TrPWB	.040	.292	1.000	.854
	TrllLJTrPWB	-.052	.746	.854	1.000
Sig. (1-tailed)	Q32TrSAconst	.	.043	.319	.272
	TrFull_llLJS	.043	.	.000	.000
	TrPWB	.319	.000	.	.000
	TrllLJTrPWB	.272	.000	.000	.
N	Q32TrSAconst	140	140	140	140
	TrFull_llLJS	140	140	140	140
	TrPWB	140	140	140	140
	TrllLJTrPWB	140	140	140	140

Table 56: Model Summary, TrConstant SA

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.170[a]	.029	.015	.46926	.029	2.034	2	137	.135	
2	.170[b]	.029	.008	.47097	.000	.012	1	136	.915	1.773

a. Predictors: (Constant), TrPWB, TrFull_llLJS

b. Predictors: (Constant), TrPWB, TrFull_llLJS, TrllLJTrPWB

c. Dependent Variable: Q32TrSAconst

Table 57: Anova, TrConstant SA

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.896	2	.448	2.034	.135[a]
	Residual	30.169	137	.220		
	Total	31.064	139			
2	Regression	.899	3	.300	1.350	.261[b]
	Residual	30.166	136	.222		
	Total	31.064	139			

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: Q32TrSAconst

Table 58; Coefficients, TrConstant SA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.389	1.074		1.293	.198	-.735	3.512					
	TrFull_IILJS	-.997	.509	-.173	-1.960	.052	-2.002	.009	-.146	-.165	-.165	.915	1.093
	TrPWB	.501	.487	.091	1.029	.306	-.462	1.463	.040	.088	.087	.915	1.093
2	(Constant)	-.457	17.203		-.027	.979	-34.478	33.564					
	TrFull_IILJS	-.060	8.723	-.010	-.007	.994	-17.311	17.191	-.146	.000	.000	.003	319.417
	TrPWB	1.648	10.681	.298	.154	.878	-19.474	22.769	.040	.013	.013	.002	522.691
	TrIILJTrPWB	-.582	5.412	-.298	-.108	.915	-11.285	10.121	-.052	-.009	-.009	.001	1078.969

a. Dependent Variable: Q32TrSAconst

In sum, the results of the outcome SA (when a constant is added) indicate the correlation with IILJ is barely significant as shown in Table 55 and 58 ($p<.05$) and that PWB and the interaction term have no significant relationship. The coefficient values are discussed later along with the two way interaction effects.

Table 59: Descriptive Statistics, TrConstant Pres

Descriptive Statistics

	Mean	Std. Deviation	N
Q33TrPresconst	.8447	.71743	140
TrFull_IILJS	1.9262	.08184	140
TrPWB	1.6636	.08551	140
TrIILJTrPWB	3.2065	.24244	140

Table 60: Correlations TrConstant Pres

Correlations

		Q33Tr Presconst	TrFull_IILJS	TrPWB	TrIILJTrPWB
Pearson Correlation	Q33TrPresconst	1.000	-.313	-.272	-.360
	TrFull_IILJS	-.313	1.000	.292	.746
	TrPWB	-.272	.292	1.000	.854
	TrIILJTrPWB	-.360	.746	.854	1.000
Sig. (1-tailed)	Q33TrPresconst	.	.000	.001	.000
	TrFull_IILJS	.000	.	.000	.000
	TrPWB	.001	.000	.	.000
	TrIILJTrPWB	.000	.000	.000	.
N	Q33TrPresconst	140	140	140	140
	TrFull_IILJS	140	140	140	140
	TrPWB	140	140	140	140
	TrIILJTrPWB	140	140	140	140

Table 61: Model Summary, TrConstant Pres

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.365[a]	.133	.121	.67271	.133	10.548	2	137	.000	
2	.368[b]	.136	.117	.67427	.002	.370	1	136	.544	1.811

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: Q33TrPresconst

Table 62: Anova, TrConstant Pres

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.546	2	4.773	10.548	.000[a]
	Residual	61.998	137	.453		
	Total	71.545	139			
2	Regression	9.715	3	3.238	7.123	.000[b]
	Residual	61.830	136	.455		
	Total	71.545	139			

a. Predictors: (Constant), TrPWB, TrFull_IILJS

b. Predictors: (Constant), TrPWB, TrFull_IILJS, TrIILJTrPWB

c. Dependent Variable: Q33TrPresconst

Table 63: Coefficients, TrConstant Pres

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	7.907	1.540		5.136	.000	4.863	10.951					
	TrFull_IILJS	-2.236	.729	-.255	-3.067	.003	-3.677	-.794	-.313	-.253	-.244	.915	1.093
	TrPWB	-1.656	.698	-.197	-2.374	.019	-3.036	-.276	-.272	-.199	-.189	.915	1.093
2	(Constant)	-7.040	24.630		-.286	.775	-55.746	41.667					
	TrFull_IILJS	5.345	12.489	.610	.428	.669	-19.353	30.043	-.313	.037	.034	.003	319.417
	TrPWB	7.632	15.291	.910	.499	.619	-22.607	37.871	-.272	.043	.040	.002	522.691
	TrIILJTrPWB	-4.712	7.749	-1.592	-.608	.544	-20.035	10.612	-.360	-.052	-.048	.001	1078.969

a. Dependent Variable: Q33TrPresconst

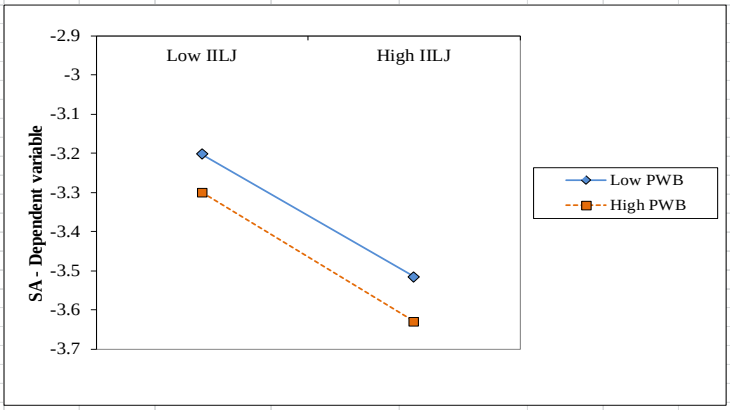
In sum, the correlation results for IILJ, PWB, and the interaction term with presenteeism (when a constant is added) are consistent with the previous Log transformation results. Table 60 shows there is a significant ($p<.001$) negative correlation with this outcome. The coefficient values are discussed below along with the two way interaction effects.

To further understand the moderation effects of PWB on the influence IILJs has on the outcome variables the mean center of the variables and the multiplicative terms have been constructed. After centering IILJs and PWB and computing the IILJ*PWB interaction term (Aiken & West, 1991; Dawson, 2014), the two predictors and the interaction were entered into a simultaneous regression model to determine whether the association between IILJs and the two outcomes, SA and presenteeism, depends on the amount of employee PWB. The results of the two way interaction are found in Figure 26 (for SA) and Figure 27 (for presenteeism).

The direction of the IILJ scores on SA and presenteeism at low and high levels of PWB have been plotted below in Figure 26 and 27 respectively. Results indicate that greater PWB ($B = .501$, $SEb = .487$, $\beta = .092$, ns) and higher IILJs ($B = -.997$, $SEb = .509$, $\beta = -.173$, ns) are both associated with lower SA although the values are not significant. The interaction effect between IILJs and PWB on SA is also not significant ($B = -.582$, $SEb = 5.412$, $\beta = -.298$, ns). The results suggest that the effect of IILJs on SA is not dependant on the level of PWB. Simple slopes for the association between IILJs and SA were tested for low (-1 SD below the mean), and high (+1 SD above the mean) levels of PWB. Each of the simple slope tests revealed a slight negative association between IILJs and SA, and this negative association of IILJs to SA cannot be said to be more associated to low or high levels of PWB. Figure 26 plots the simple slopes for the interaction.

Figure 26: Two Way Interaction Effects TrConstant SA

Variable names:	
Name of independent variable:	IILJ
Name of moderator:	PWB
Unstandardised Regression Coefficients:	
Independent variable:	-0.997
Moderator:	0.501
Interaction:	-0.582
Intercept / Constant:	-0.457
Means / SDs of variables:	
Mean of independent variable:	1.928
SD of independent variable:	0.08184
Mean of moderator:	1.6636
SD of moderator:	0.08551

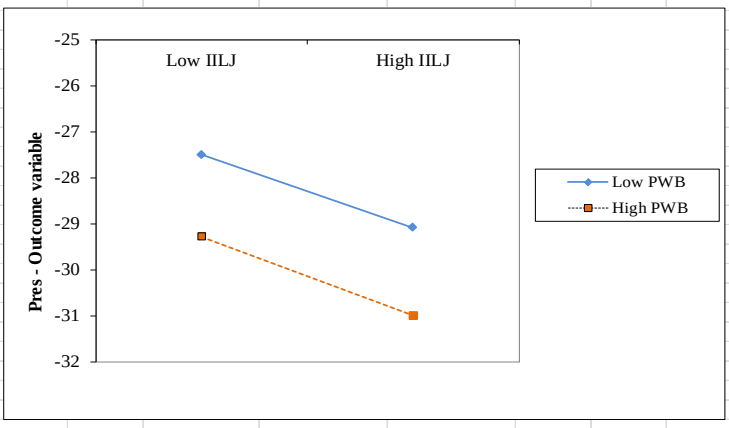


Direction of IILJ scores on SA at low and high levels of PWB

For the outcome presenteeism (see Figure 27) results indicate that greater PWB (B = -1.656, SEb = .698, β = -.197, p<.05) and higher IILJs (B = -2.236, SEb = .729, β = -.255, p<.005) were both associated with lower presenteeism and the values are significant. The interaction effect between IILJs and PWB was also negative but is not significant (B = -4.712, SEb = 7.749, β = -1.592, ns). These results suggest that the effect of IILJs on presenteeism is not dependant on the level of PWB. Simple slopes for the association between IILJs and presenteeism were tested for low (-1 SD below the mean), and high (+1 SD above the mean) levels of PWB. Each of the simple slope tests revealed a negative association between IILJs and presenteeism, and this negative association of IILJs to presenteeism cannot be said to be more associated to low or high levels of PWB. Figure 27 plots the simple slopes for the interaction.

Figure 27: Two Way Interaction Effects TrConstant Presenteeism

Variable names:	
Name of independent variable:	IILJ
Name of moderator:	PWB
Unstandardised Regression Coefficients:	
Independent variable:	-2.236
Moderator:	-1.656
Interaction:	-4.712
Intercept / Constant:	-7.04
Means / SDs of variables:	
Mean of independent variable:	1.928
SD of independent variable:	0.08184
Mean of moderator:	1.6636
SD of moderator:	0.08551



Direction of IILJ scores on Presenteeism at low and high levels of PWB

4.4.2.3. Analyzing the Effects of Controls

The process of introducing one or more control variables such as gender, age, level of education, length of employment, etc. into the analysis allows an elaboration or expansion on the explanation of the relationship between two variables by investigating how that relationship is influenced by other variables exogenous to the models. The literature review revealed that SA and presenteeism can be influenced by many contaminating factors. Therefore in this study particular demographic control variables have been tested for their full and partial correlations to the outcome variables. The control variables include: gender, age, level of education, area of work, Faculty, length of employment, union or non-union (exempt), type of union, type of job (regular part time or full time). The correlation matrix for the demographic variables (study controls) can be viewed in Appendix J. It is observed that all of the correlations of the control variables with the outcome variables, with the exception of two, are low and not significant. The variable “union or exempt” has a negative significant correlation (-.185) with TrSAConstant at $p<.05$. “Union type” also has a negative significant correlation (-.164) with TrSAConstant at $p<.05$.

Sometimes different results will be observed when calculating partial correlations (i.e., one variable is controlled or removed from the regression analysis). Below are some potential scenarios when analyzing partial correlations (Aiken & West, 1991):

- If there is no relationship between the predictor and the residuals, then the controlled variable completely accounts for the relationship between the predictor and the outcome variables.
- If the partial correlation is somewhat weaker or less than the simple correlation values originally observed between the predictor and the outcome variables. In this case the control variable is identified as accounting for part of the correlation of the relationship

between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation.

- If the relationship between the predictor and the residuals is just as strong as the original relationship, then the control variable is not a mediating variable which means it is not involved in the relationship.
- If the relationship between the predictor and the residuals is stronger than the original relationship, then the control variable is called a suppressor variable. For example, it is possible for the simple correlation between a predictor and outcome variable to be close to zero but for the partial correlation when one variable (a control variable) is removed to be large. In this case the control variable is suppressing, rather than mediating, the relationship between the predictor and outcome variable. When the control variable is taken out of the correlation analysis the correlations become greater. Therefore if the "suppressor variable" is not controlled, it suppresses the relationship between the predictor and the outcome variable. This may occur when the control variable is negatively correlated with one and positively correlated with the other. When the suppressing variable is removed the predictor variable can be used to predict the remaining part of the outcome variable of interest.

In correlational research none of these situations can unambiguously identify any variable as the cause of any other variable, but the procedures can help to develop and test theories to explain relationships among the variables. For example, the original explanation may remain unaffected, initial findings may have been spurious because some third variable may strongly influence the original effect, the original relationship may be indirect and when a third variable is controlled the original relationship may disappear, or, the nature of the relationship between the predictor and the

outcome variables may depend on the third variable and when it is controlled the relationship of the main effect can be better specified (Aiken & West, 1991).

When the control variables are tested in this study some general findings emerged and they are summarized below. The specific values for the correlations between the predictors and outcome variables after removing particular demographic controls can be viewed in Appendix J.

- Controlling for all the demographic variables used in the study does not eliminate the relationship between IILJ, PWB, and their interaction term (IILJ*PWB) with the outcome SA (TrSAConstant). In two cases (IILJ and IILJ*PWB) across all the control variables, the relationship with SA is strengthened. This indicates that the control acts as a suppressing variable. In one case (PWB*TrSAConstant) across all the control variables, the relationship is altered and changes direction when each of the controls is removed. The relationship changes from positive to negative. This indicates a mediating relationship between the control and predictor variables.
- The values show that the predictor variables (and their interaction terms) are substantially correlated with the outcome variable presenteeism (TrPresConstant). Systematically "removing" the various control variables (i.e., gender, age, etc.) demonstrates that when the controls are included in the regression they actually suppress or reduce the relationship between the predictors and presenteeism.
- Controlling for all the demographic variables used in the study does not eliminate the relationship between IILJ, PWB, and their interaction term with the outcome presenteeism. In all cases the relationship is strengthened.

Since none of the correlations became less significant it is concluded that the demographic control variables tested are not the initial factor establishing the correlation.

Although further exploration of the demographic control data at the granular level is beyond the scope of this study, based on the correlations shown in Appendix J, additional speculations can be made about the relationship between some the variables with the outcome variables. For gender approximately 72 % of the sample respondents are female and the correlation is positive for SA (.059) and negative for presenteeism (-.018). Although not large, the direction of the correlations is consistent with previous literature. When gender (generalized to women) is removed or controlled for its effect on the relationship between PWB and SA the value becomes negative as opposed to positive. This demonstrates the mediation effect gender has in the correlation between PWB and SA. Essentially when gender (the majority being women) is removed from the analysis the correlation with SA changes from positive to negative. With regards to IILJ, SA has a positive correlation with gender (women) and a negative relationship with IILJ therefore, in the original correlation values gender has a suppressing effect on the correlation between IILJ and SA. When gender is controlled the correlation values increase (as indicated in Appendix J). About 73% of the sample respondents are between the ages of 45-65. SA is negatively correlated to age (-.125) and presenteeism is positively correlated to age (.100). Again this is consistent with previous findings and supports the notion that older workers have less sick time and may attend work more when ill. The degree to which this aggravates illness in the workplace and leads to longer periods of sick absence days or eventual work withdrawal as postulated in previous literature cannot be determined from this data. Age has a positive correlation with presenteeism and acts to suppress the negative correlation between both of the predictors and this outcome (see Appendix J). Level of education is negatively associated with SA (-.085) and positively related to presenteeism (.103). Approximately 65% of the respondents had their masters or doctorate degrees. Again, a higher level of education has a mediating effect on the relationship between PWB and SA. The direction of the correlation changes from positive to negative. It also acts to suppress the correlations between the predictors IILJ and its interaction term with the outcome presenteeism. When the variable higher education is controlled the

correlation increases with presenteeism. With regards to length of employment, approximately 72% of the study participants have worked at BCU for 5-15 or more years. The length of employment was positively correlated to SA (.029) and presenteeism (.094) which intuitively makes sense and is consistent with previous literature. The suppressing effect on the relationship between the predictors and outcomes is noted again when length of employment is controlled. The correlations with the predictors and SA and presenteeism increases (see Appendix J). 75% of the study respondents are union members. Being a union member was negatively correlated to SA (-.185) and this value was significant ($p<.05$). It was also negatively correlated to presenteeism (-.094). Approximately 86% of study participants are regular full time employees and type of job was negatively correlated to both SA (-.036) and presenteeism (-.074).

4.4.2.4. Spearman's Rank Correlation Coefficient (Spearman's Rho)

When correlating skewed variables non-parametric measures like Spearman's Rho has a similar effect as transformation of data by converting all variables to ranks. It is viewed as less subjective because the researcher does not have to think about transformations and is more flexible because it does not require knowledge of the joint probability of X and Y as Pearson's correlation does (Field, 2009). A further benefit is that all cases are included in the analysis because negative and 0 values are not excluded as with transformed data. Essentially Spearman's Rho determines if there is a correlation between sets of ranked data in a monotonic way (i.e., if one variable increases so does the other) even if it is not linear.

There are two assumptions that must be met to determine if Spearman's Rho is an appropriate test for the data (Field, 2009). The first assumption requires that the variables are ordinal and/or interval/scale. This assumption was met. Assumption number two requires that the relationship between two variables be monotonic, i.e., as the values increase together or as one variable increases the other decreases. This is known to be true from the multiple regression conducted on the

transformed data therefore this assumption is also met. The scatterplot diagrams for all the predictors and outcomes (original data and the transformed data) are shown in Appendix K and they confirm the monotonic relationship of the variables of interest.

Since outliers were retained in the data, Spearman's Rho is a good choice because it is not very sensitive to outliers and yields a valid result while retaining the outliers. This means all the cases will be included in the analysis.

A Spearman's rank-order correlation was run to determine the relationship between the predictors and outcome variables (See Table 64). A one-tailed test of significance indicated there was a non-significant correlation with SA. Negative correlation results exist for IILJS ($r_s(140)= -.133$, p>0.01, *ns*); PWB ($r_s(140)= -.043$, p>0.01, *ns*), and; the interaction predictor, IILJS*PWB, ($r_s(140)= -.102$, $p>0.01$, *ns*). There was one tailed significance with a negative correlation between IILJS and presenteeism ($r_s(140)= -.301$, $p<0.01$). A significant negative correlation of presenteeism with PWB is indicated ($r_s(140)= -.202$, $p<0.01$). There was also a significant negative correlation between the interaction predictor and presenteeism ($r_s(140)= -.340$, $p<0.01$). The value for the correlation of presenteeism with the predictors and their interaction term signifies that the likelihood of these data occurring by chance is significantly low.

In addition, it is observed that the two outcome variables (SA and presenteeism) have a positive significant correlation with each other ($r_s(140)= .285$, $p<0.01$). Although the value is modest it indicates the likelihood of this correlation occurring by chance is significantly low.

Table 64: Non-Parametric Correlations of Spearman's Rho

Correlations

			Full_IILJS	PWB Score	IILJSPWB	Q32-SA	Q33-Presen
Spearman's rho	Full_IILJS	Correlation Coefficient	1.000	.429**	.886**	-.133	-.301**
		Sig. (1-tailed)	.	.000	.000	.059	.000
		N	140	140	140	140	140
	PWB Score	Correlation Coefficient	.429**	1.000	.749**	-.043	-.202**
		Sig. (1-tailed)	.000	.	.000	.307	.008
		N	140	140	140	140	140
	IILJSPWB	Correlation Coefficient	.886**	.749**	1.000	-.102	-.340**
		Sig. (1-tailed)	.000	.000	.	.116	.000
		N	140	140	140	140	140
	Q32-SA	Correlation Coefficient	-.133	-.043	-.102	1.000	.285**
		Sig. (1-tailed)	.059	.307	.116	.	.000
		N	140	140	140	140	140
	Q33-Presen	Correlation Coefficient	-.301**	-.202**	-.340**	.285**	1.000
		Sig. (1-tailed)	.000	.008	.000	.000	.
		N	140	140	140	140	140

**. Correlation is significant at the 0.01 level (1-tailed).

4.5. Chapter Summary

The model summary in Table 65 shows that IILJ and PWB as standalones had no significant predictive influence over SA. However, when these two predictors interact (combined) they account for 5% of the variation in SA. The results show that this variation was not significant but it is observed that PWB tends to strengthen the correlation of IILJ when a negative correlation exists with SA.

Table 65: Model Summary, TrSA and each Predictor

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.020[a]	.000	-.010	.37366	.000	.037	1	97	.848	
2	.026[b]	.001	-.020	.37555	.000	.026	1	96	.872	
3	.214[c]	.046	.016	.36886	.045	4.515	1	95	.036	1.714

a. Predictors: (Constant), TrFull_IILJS

b. Predictors: (Constant), TrFull_IILJS, TrPWB

c. Predictors: (Constant), TrFull_IILJS, TrPWB, TrIILJTrPWB

d. Dependent Variable: TrSA

The model summary for presenteeism shows that the variation in values that can be attributed to the predictors is as follows: IILJ = 9%; PWB = 5%; IILJ*PWB = 2% (Table 66). The interaction effects, although significant, did not account for much change in presenteeism values. Therefore the predictors as standalones were significant and had more predictive influence over presenteeism than if they were combined.

Table 66: Model Summary, TrPresenteeism and each Predictor

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.302[a]	.091	.084	.57873	.091	11.766	1	117	.001	
2	.374[b]	.140	.125	.56544	.049	6.566	1	116	.012	
3	.399[c]	.159	.137	.56148	.019	2.642	1	115	.107	2.096

a. Predictors: (Constant), TrFull_IILJS

b. Predictors: (Constant), TrFull_IILJS, TrPWB

c. Predictors: (Constant), TrFull_IILJS, TrPWB, TrIILJTrPWB

d. Dependent Variable: TrPres

For easy reference a summary of the correlation values of each of the methods used to test the data (Transformed Log10, Transformed with constant (to include all cases), and Spearman's Rho) is provided in Table 67. This table tells us that the predictors, independently and combined, were significantly correlated to the value of presenteeism. The correlation was not significant for SA.

Table 67: Summary and Comparison of Correlations

Correlation Comparison - Transformed values, TrConstant values, and Spearman's Rho values									
	IILJ			PWB			IILJ*PWB		
	Tr	TrConstant	Spearman's Rho	Tr	TrConstant	Spearman's Rho	Tr	TrConstant	Spearman's Rho
SA	-0.020	-0.146	-0.133	0.010	0.040	-0.043	-0.100	-0.052	-0.102
Presenteeism	-0.301	-0.313	-0.302	-0.299	-0.272	-0.202	-0.377	-0.360	-0.340

Correlation is significant at 0.001 level (1-tailed)

Correlation is significant at 0.01 level (2-tailed)

Correlation is significant at level 0.05

5. DISCUSSION

This chapter is devoted to providing a critical discussion of the findings and initial analysis, when set against the existing literature as discussed in Chapter Two. The overall purpose of this study was to learn the relationships and effects among the concepts of individual institutional legitimacy judgements, employee PWB, and the organizational outcomes of sickness absence and presenteeism. Specifically, the study focused on two primary objectives:

1. To determine the independent effects individual institutional legitimacy judgements and employee PWB have on the organizational outcomes employee sickness absence and presenteeism.
2. To determine whether employee PWB has a moderating effect on the relationship between individual institutional legitimacy judgements and the organizational outcomes sickness absence and presenteeism

Following a study to establish content validity for the IILJ scale, an exploratory factor analysis (EFA) was conducted on the scale with the purpose of generating theory and establishing the scale's internal validity. The EFA was a necessary step before appropriately applying the data of the IILJS to multiple regression and analysis. A three-factor structure with 19 out of the 23 originally proposed items was the result with an oblimin (orthogonal) rotation. The three factors fit the theoretical three-factor structure discussed in the literature review (Leach, Ellemers & Barreto, 2007; Tost, 2011). The three factors include relational (9 items), instrumental (5 items), and moral (5 items) with an internal consistency of .830 which is considered good (Field, 2009). The structure was clean and parsimonious with all items loading on one of the three factors. The factor loadings made sense theoretically and resonated with other items loading on the same factor. The EFA identified the number of factors that underlie a set of variables and determined whether the factors are correlated or

uncorrelated. Having identified that the test scores of the EFA were valid and that the scale measured what it purports to, the main study to answer the research question was conducted.

As noted in the literature review, there is a wide body of literature which exists on the concepts of interest but they have not been studied from a micro perspective (i.e., internal legitimacy whereby employees judge the legitimacy of their institution). Additionally, correlational research on the topics of interest from a multilevel perspective (i.e., institution, organization, and individual employee) has not previously been attempted. Many scholars (i.e., Berger & Luckmann, 1966; Meyer & Rowan, 1977; Zucker, 1977; Fombrun & Shanley, 1990; Oliver, 1991; Rao, 1994; Suchman, 1995; Kostova & Roth, 2002; Maguire, Hardy, & Lawrence, 2004; Tilling, 2004; Podolny, 2005; Suddaby & Greenwood, 2005; Tost, 2011; and Bitektine, 2011) demonstrated that institutional legitimacy judgments can take many forms and despite the fact that it is not always defined in a consistent manner, it has tremendous power to influence the fate of organizations. Most of these views are from a macro perspective and Tost (2011) and Bitektine (2011) have advocated for a micro perspective to legitimacy judgements whereby actors working within organizations are recognized as being a vital part of an organization's institutional fabric. Within this view, it is theorized that individual institutional legitimacy judgements can influence organizational functioning and that ultimately, it is the feedstock for changes at the institutional level. As discussed in the literature review, Tost (2011) postulates that this most likely occurs in the judgement reassessment phase of the legitimacy judgement cycle. It is probable that all of the stages in the legitimacy judging cycle proposed by Tost (2011) were evidenced in the questionnaire and those who provided middle to low values for questions were likely in the initial judgement formation stage or in the reassessment stage. Since the bulk of the respondents have been working at BCU for 5 to 15 years or more (3 categories that represented 72% of the responses) it is likely they are beyond the judgement formation stage and are in the reassessment stage (see Table 13 and Appendix I). Tost (2011) claims that the positive bias that characterizes the judgment formation stage and the use stage is typified by a taken for

granted approach (i.e., institutional arrangements are passively accepted). Alternately, people are more reflective and critical when in the reassessment phase and less inclined to justify questions about their organization in a positive direction.

This dataset suggests that, at the time of this study, BCU in fact has a moderately low reservoir of IILJ (mean of 84 out of 133, or 66 of 100) and a moderately high reservoir of PWB (mean of 46 out of 56, or 82 out of 100) in its employees. Thus these broad findings of the study support the literature insofar as legitimacy judgements are showing signs of strain for BCU. The changes occurring at the PSEI level have likely resulted in employees questioning their institution. In general, employees' relationship with their organization may be said to be languishing. On the other hand, employees' PWB values indicate they are, in general, flourishing. The implications these observations may have for other PSE organizations and the field at large is a curiosity. Interestingly, the BCU employees appear to be a resilient lot and have maintained, for the majority, a strong PWB in the face of the institutional and organizational changes around them.

The implication this has for the managers of BCU is that it is likely in their best interest to strategize towards mitigating the effects the PSEI changes are having on employee IILJs and ultimately, organizational outcomes. Since both IILJ and PWB had a significant negative effect on presenteeism, efforts would most effectively be directed at both predictors independently. The interaction effects between IILJ and PWB were not consequential to the variance in presenteeism with this data set. Nonetheless the correlation between the two predictors, IILJ and PWB, is positive and the values were .292 (transformed data) and .429 (Spearman's Rho). The Spearman's Rho value was significant ($p<0.01$) therefore these two predictors may have a greater interaction effect with different organizational outcomes.

5.1.Propositions- Acceptance or Rejection

When doing a granular analysis of the data it was revealed that it did not meet the assumptions of a regression model. To proceed with a multiple regression test the data were transformed (Log10) and a constant was also added. A Spearman's Rho test was also conducted for comparison. The results of the regression tests and the Spearman's Rho illustrate the strength of the proposed IILJS and the predictive model. While some propositions were not supported such as the predicted positive relationship between IILJ and presenteeism and the interaction effects of the two predictors on the outcomes, the majority of propositions were in fact supported. The second proposition (#2- IILJ will have a positive effect on presenteeism) was contrary to the direction of the correlation in the test findings. IILJ actually had a negative correlation with presenteeism and the relationship was significant. As a natural result of proposition 2 being negative (as opposed to positive) proposition 6 was rejected because the negative relationship was strengthened as opposed to changed. Each relationship between IILJ (with the exception to proposition 2) and the outcomes were proposed to be negative and this was the case. This finding indicates that the more employees judged the organization as legitimate, the value of SA and presenteeism decreased. The negative effect of IILJ on SA was not significant therefore this result may have occurred by chance. The logic behind these findings is that in a "legitimate" organization sick days are to be taken as they are meant to be taken and presenteeism behaviour would likely occur when legitimacy was in question. If illegitimacy judgements of an organization are related to employee stress and employee stress is positively correlated to presenteeism, then this is congruent with the findings in the literature review (Caverley et al., 2007; Demerouti et al., 2009; Koopman, Pelletier, Murray, Sharda, Berger, Turpin, …, Bendel, 2002). Questioning an organization's legitimacy may relate to high workload, lack of substitutions when absent, pressured timelines, strained resources, and changes in taken for granted practices. The

interaction of IILJ with PWB did not contribute much to the model, however, IILJ and PWB as standalones are worthy of attention by BCU.

The original and transformed data identified that the average mean for number of sick days is 3. The difference in the mean in the original data and the transformed data for presenteeism is quite large (original=28 days, transformed= 10 days). Perhaps this was due to reduced cases for the transformed data. In addition, transformation aligns outliers with the rest of the data set by assigning ranks to the values therefore it can be speculated that the extreme values may be underestimated in the transformed values and overestimated in the original data. Taking an intermediate (and imprecise) approach we may say that the mean of these two values is approximately 19. An average of 19 days of presenteeism across a population of 832 employees seems high if the connection to productivity loss (and the associated cost) as discussed in the literature review is true.

PWB was found to be negatively related to both of the outcome variables but this relationship was only significant for presenteeism. The two predictors have a distinct influence on presenteeism (IILJ= 9% of the variance, PWB=5% of the variance) and the enhancement of the effect with their interaction was significant but accounted for only 2% of the variance of presenteeism in model 2. PWB did buffer IILJ to some extent for the outcome SA and it accounted for 5% of the variance in SA values. Although the correlation was not significant for this data set the relationship is interesting. It can be speculated that if employees reported more negative values for IILJ and had positive values for PWB then perhaps this effect would be stronger for SA values.

The propositions and research outcomes are summarized below.

Proposition 1-Accepted*:* Individual institutional legitimacy judgements will be negatively correlated to sickness absence (Model 1- path a, Research Model, Figure 1).

The correlation between IILJ and SA was negative at -.02 (Tr) and -.133 (Spearman's Rho). It was not a statistically significant effect therefore, based on these results, employee SA is not

predicted by IILJs. However, when a constant was added to include all cases in the regression model the correlation (to TrConstantSA) was negative at -.146 and significant ($p<0.05$).

Proposition 2-Rejected*:* Individual institutional legitimacy judgements will be positively correlated with presenteeism (Model 1-path a, Research Model, Figure 1).

Although the predictive capacity of IILJ is significant for presenteeism the nature of the correlation is different than proposed. A negative correlation (rather than positive) exists between IILJ and presenteeism. The relationship was significant at -.301 ($p<0.001$) (Tr) and -.302 ($p<0.01$) (Spearman's Rho) and -.313 ($p<0.001$) (TrPresConstant). The value of presenteeism can be predictably inferred from IILJ.

The original proposition of a positive correlation was based on the finding in the literature that positive work and justice perceptions are positively correlated to presenteeism. To clarify this finding, we are reminded that this study has examined the processes of deinstitutionalization and de-legitimization rather than institutionalization and legitimization. Employee's reactions, both subjective and behavioural, to a perceived loss of institutional legitimacy were of interest. In order to study this concept, an instrument to measure individual institutional legitimacy judgements was developed. Thus, individual institutional "illegitimacy judgements" were found to be positively correlated to presenteeism. At least two reasons for this finding can be speculated upon.

First, the WHO's (1948) broad and much cited definition of health that includes physical, mental, and social WB in addition to the absence of disease or infirmity plays a role in more people attending work when ill. In today's world there is a focus on the treatment (i.e., use of medication) and management of both acute and chronic illnesses in order for people to go about their daily business. People's health and how individuals feel physically, mentally, or emotionally varies greatly and quality of life can be quite relative. So people who have a chronic illness such as diabetes or fibromyalgia may have their health symptoms relatively managed (or not) and may attend work every day sick. The fact that their WB is good makes it possible for them to qualify, within the WHO

definition, as a relatively healthy person capable of working. They may be suffering silently due to the association presenteeism has with productivity loss. Fears or insecurities about the implications of being judged negatively by their co-workers and managers about performance or being "present but absent" would likely be accompanied by stress or feelings of guilt. This all funnels into an increased cycle of sickness presence until the illness is so aggravated sick time must be taken. Thus, the numbers of employees that attend work when ill can be quite high and if many of those people are in the institutional legitimacy judgement reassessment phase, i.e., they are actively questioning and re-evaluating the legitimacy of the institutional changes, then the negative correlation between IILJs and presenteeism will be significant.

The second reason may be that in the re-assessment phase of institutional legitimacy judgement the extent that an entity is viewed as illegitimate will determine the degree to which employees will actively seek to change it or oppose it (Tost, 2011). The re-assessment phase is characterized by employees who, for their own reasons, are motivated to actively and deliberately examine and act on misaligned or contentious perceptions of institutional changes. This is in opposition to passive acceptance whereby cognitive energy is conserved (i.e., institutionalized behavior). Thus, it is speculated that to engage in the active re-assessment phase employees must be present at work. They may feel increasingly insecure, uncertain and ambivalent about institutional changes and have a strong need to attend work to better understand the violation or disconnect that has occurred and to stand guard or protect what they believe in. In other words, employees become hyper vigilant in the face of a perceived threat and attend work despite their illness or injury. Again, this scenario is supportive of the stressful nature of institutional changes for employees and if they perceive a change in their institutions legitimacy status (i.e., a process of de-legitimization is occurring) they will increasingly attend work when ill or injured.

Proposition 3- Accepted*:* Employee PWB will be negatively correlated to sickness absence (Model 1- path b, Research Model, Figure 1).

The correlation results between PWB and SA were mixed. A small positive correlation of .010 occurred for the transformed data, a positive correlation of .040 for the TrSAConstant value, and a negative value at -.043 occurred for the Spearman's Rho. A negative correlation is more intuitive and consistent with the theoretical literature. Based on the WHO's (1948) definition of health (discussed in the literature review) wellbeing is a dimension of health. However a state of WB does not necessarily coincide with an absence of disease. WB and disease can coexist (i.e., people living with chronic disease can have high WB) and although it is a necessary dimension of health it is not sufficient as a standalone to define health. Thus WBs relationship to sickness (and SA) is tenuous. Neither result was statistically significant therefore employee SA is not likely to be predicted by their PWB.

Proposition 4- Accepted*:* Employee PWB will be negatively correlated to presenteeism (Model 1- path b, Research Model, Figure 1).

A significant negative correlation exists between PWB and presenteeism. The relationship was significant at -.299 ($p<0.001$) (Tr), a -.272 for the TrPresConstant value, and -.202 ($p<0.01$) (Spearman's Rho). The value of presenteeism can be predictably inferred from PWB. Although the correlation is relatively low the effect bears attention.

Proposition 5- Rejected*:* The combined effects of individual institutional legitimacy judgements and employee PWB will strengthen the negative correlation to sickness absence (Model 2- path c, Figure 1)

The correlation between the two predictors (IILJ*PBW) and SA was negative at -0.010 (Tr), and -.052 (TrSAConstant), and -.102 (Spearman's Rho). PWB slightly buffered the negative correlation of IILJ with SA for the Tr data (changed from -.020 to -.010) but the negative correlation increased for the other two values (TrSAConstant and Spearman's Rho). None of the values were significant. Based on this result, employee SA cannot be predicted by the interaction effect of IILJ and PWB.

Proposition 6- Rejected*:* The combined effects of individual legitimacy judgements and employee PWB will change the direction of the correlation to presenteeism (Model 2-path c, Research Model, Figure 1).

A negative correlation exists between IILJ*PWB and presenteeism. The relationship was significant at -.377 ($p<0.001$) (Tr), and -.360 ($p<.001$) (TrPresConstant), and -.340 ($p<0.01$) (Spearman's Rho). In proposition 2 it was initially thought than IILJ would be positively correlated to presenteeism. However, the results show a negative correlation between this predictor and presenteeism. As a result, the correlation did not change directions but the negative correlation was strengthened. Thus, the value of presenteeism can be predictably inferred from the interaction effect of the predictors- as the predictor increases, presenteeism will decrease (and the reverse, as the predictor decreases, presenteeism will increase).

Further to the explanation speculated upon for proposition # 2 (IILJs and presenteeism), the study participants' negative responses to IILJs and PWB each multiplied the risk of presenteeism and the joint effect was slightly higher than the independent sum of both effects (16% as opposed to 14%) but not enough to say it predictably increases the risk of presenteeism. Although IILJ and PWB are positively correlated (.292), they are different concepts. PWB relates to people's environmental mastery, autonomy, personal growth, purpose in life, and self-acceptance. It measure's what people are able to "do" with the intrinsic and extrinsic resources available to them and seems to have little effect on people's reflections and judgements about the state of their affairs. This is congruent with PWB being closely associated with people's functioning (vs. feeling).

The research outcomes are summarized below in Table 68. The pre-test propositions and post-test results are included.

Table 68: Proposition Outcomes (Pre and Post Test)

Propositions	**Predictor Variables**	**Outcome Variables**	
		Sickness Absence Correlation	**Presenteeism Correlation**
		Pre-test **Post-test**	Pre-test **Post-test**
Propositions 1&2 (Model 1)	Individual Institutional Legitimacy Judgements	-ve **-ve**	+ve **-ve**
Propositions 3&4 (Model 1)	Employee PWB	-ve **-ve**	-ve **-ve**
Propositions 5 & 6 (Interaction Effects) (Model 2)	Individual Institutional Legitimacy Judgements and Employee PWB	Strengthened –ve **Strengthened -ve**	Change direction to -ve **Strengthened -ve**

5.2.Research Contributions and Implications

The model put forth in this research contributes in several ways to the research community. First, it provides a scale which did not exist previously with content and internal construct validity to measure individual institutional legitimacy judgements. The scale promises to portray a picture at the micro level of employee's institutional legitimacy judgements and provides an indication of individual institutional legitimacy judgements' predictive power in individual and organizational functioning. The multilevel framing of legitimacy judgements provides a reciprocal perspective of macro and micro institutional influences. Changes at the macro level influence micro perspectives within organizations and changes at the micro level, in turn, have the capability to serve as feedstock for the macro field changes. The use of the IILJ instrument at the micro level presents institutional and organizational researchers with an opportunity to study the impact of institutional changes in a

systematic nested way. As discussed in the literature review the relationship amoung institutional changes, organizational employees and their work, and organizational outcomes is of interest to institutional and organizational practitioners and scholars. This research is positioned to add to the growing knowledge base.

Second, another research contribution is that the current study extends the critique of research on work absence and presence behaviours (Johns, 2010, 2011). As discussed in the literature review it is important to study work behaviours related to sickness (sickness absence and presenteeism) and not confuse terms with absence when not sick or presence when not sick. The confusion in theoretical relationships amoung work absence and presence behaviours is due, in part to definition osmosis of the terms sickness absence, absenteeism, presence, and presenteeism. In this study SA and presenteeism have been studied together as separate outcomes within the same models. They are shown to have a significant positive correlation to one another (.285, $p<0.01$). This means that the occurrence of SA is related to the likelihood of the occurrence of presenteeism and vice versa. Their association shows when one increases or decreases so will the other. This was supported in the literature review which found that sickness absence and presenteeism may be viewed as discrete events occurring in a sequence over time such that the occurrence of one behaviour might affect the likelihood of the other (Hackett Bycio & Guion, 1989; Hackett & Bycio, 1996). For example, a few days of SA might lead to partial restoration of health if the employee returns to work before full recovery occurs. At work they are working in a partial capacity (i.e., reduced productivity) and exhibit presenteeism. On the other hand, several days of presenteeism might aggravate the health event and lead to SA.

The literature review revealed that productivity reduction has been treated as synonymous with presenteeism rather than a consequence of it. In line with previous theorizing, in this study it was assumed that SA and presenteeism would incorporate the interactions among a health condition, work conditions, attitudes and experiences (Johns, 2010). Contextual constraints related to an

interaction between the individual experiences (i.e., the type of illness) and the situation or context (i.e., the type of job or conditions of the job) are instrumental in the choices made for sickness absence and presenteeism (Johns, 1991). The literature review revealed that work context (i.e., job insecurity, strict attendance policies, teamwork, dependent clients, no substitution, a positive attendance culture, and adjustment latitude in the job) tends to favour the occurrence of presenteeism (Johns, 2010, 2011). SA was more likely with easy replacement and a good sickness benefit system (Sagie, 1998; Daykin, 1999; Bellaby, 1999; Bierla et al., 2013). Although personal factors have not been heavily researched, they also were found to be important in the choice of SA or presenteeism. Workplace injustice, social disorganization, low cohesion, and poor consensus are predictors of absence (Johns, 2008, 2009, 2010). The connection with presenteeism is less known but the literature suggests poor social integration is highly unlikely to stimulate attendance when ill. The contextual and personal factors that have been identified as predictors of presenteeism in previous research are largely relational or instrumental in nature and the findings in this study support this. Correlational analysis of the IILJS sub-scales showed that the relational factor (-.210, $p<0.01$) and instrumental factor (-.203, $p<0.01$) had a significant negative correlation with presenteeism. The moral factor was not significant and none of the factor correlations with SA were significant.

Although it was speculated in the literature review that positive work attitudes and justice perceptions would be positively correlated to presenteeism, the results of this study were the opposite. Institutional legitimacy judgements (a.k.a. positive judgements) were negatively correlated with presenteeism. The literature also suggested that the quality of psychological hardiness would tend to promote presenteeism (Johns, 2010). Contrary to this, in this study, PWB, as a measure of psychological flourishing and strength, was also negatively correlated to presenteeism. Although it is not clear what instruments were used to produce previous results, the fact that they are contradictory to the findings in this study indicate that further research is important to clarify this discrepancy.

Lastly, the use of a valid and reliable PWB (Flourishing) scale within the workplace has added to the body of knowledge in positive psychology (Linley, Joseph, Harrington, & Wood, 2006; Linley & Joseph, 2004; Seligman, Steen, Park, & Peterson, 2005) and the human capabilities approach (Nussbaum and Sen, 1993). When used as a predictor for the organizational outcomes SA and presenteeism the results showed a negative correlation to both SA and presenteeism which supports the notion that PWB is a resource to be cultivated. It is what people are able to do with the social, psychological, economic, and material resources available to them that counts. High PWB enables people to exercise their capabilities and access valued life functions therefore it is a valuable resource within the workplace. Further study of employee PWB represents an opportunity for both researchers and organizational practitioners.

As discussed above, while care should be taken with regard to causality when using a correlational approach, the ability to support or fail to support such relationships can shed light on whether or not to further pursue a particular direction of research or practice. Phenomena within the social sciences are often unpredictable and uncertain. This study served as an important reminder to this fact. The data proved challenging to analyze because, like the people being studied, it was not linear.

5.3. Limitations of the Study

As with all studies, this study is subject to limitations, which can potentially influence conclusions drawn from the dataset. Although organizational research has provided insights into understanding how institutional change, organizational practices, and employee WB can influence organizational outcomes, in general, the research suffers from various methodological flaws. Ozminkowski and Goetzel (2001) identified six common weaknesses associated with research on the impact or influence of change on organizational outcomes. First, typically in organizational settings, randomization is not possible (Grawitch et al., 2006). As a result, selection bias occurs which is

defined as the likelihood that voluntary program participants differ from nonparticipants. Differentiation between these two groups based on some pre-existing differences, such as initial psychological health condition, represents a significant threat to the validity of a study. Although selection bias remains a potential threat, based on the demographic data collected in the study sample (see Table13 and Appendix I), it appears that the sample is representative of the entire population. Further, although there may be some selection bias, it is likely minimal because of the broad range of participation across age, education, and job types.

Second, small sample sizes are often employed in organizational studies, which may lead to the inability to make generalizations to other organizations and institutions and may in some instances have a profound negative effect on the validity of the results (Grawitch et al., 2006). In this study, the 17% response rate was less than anticipated. Questioning whether the results would be different had the "non-responders" taken the survey is important for the study's theoretical and practical utility. Of the total responses 80 (10%) were collected in the initial invitation and 60 (7%) were collected from the two follow-up invitations. To establish 95% confidence level and 5% margin of error of a total population of 832 the response rate required was 30% (or 260 responses). At a smaller sample size the sacrifice is either a lowered confidence level or lower precision (margin of error) in the results. The response rate was accepted in order to honor the promise to send two reminders and to respect the employee's privacy and work demands. Importantly, in addition to sample size the ability to generalize the results can also be gauged by assessing whether the sample is representative of the entire population (Tabachnick & Fidell, 2007). Based on the demographic data shown in Table 13 and Appendix I it is observed that non-respondents are very similar to the study respondents. In other words, the sample is representative of the entire population and it is likely that the results can be generalized to other PSEIs. Additionally, early assumptions of the study included that PSEIs, for the most part, are highly institutionalized entities (Kraatz & Zajac, 1996; Scott, 1987), employees of PSEIs are well prototyped in the literature (Kraatz, 1996), and the PSEI changes are well

documented as trends provincially, nationally, and internationally therefore participants are likely to be well informed on the topic (Douglass, 2010). It is these assumptions coupled with the representative demographic data that lend credibility to generalizing the findings to other PSEIs, however, further study is recommended to verify the results.

Third, a normal data distribution may be violated when considering various organizational outcomes such as days absent or intentions to turnover. Typically, there will be a disproportionate number of employees who have zero values on such measures and a few employees with extremely high values. Such extreme values are considered outliers and result in skewed data, which must be approached using alternative statistical techniques (Ozminkowski & Goetzel, 2001). In this study, the data were not normally distributed. In order to minimize this problem, data transformation (Log10), adding a constant, and Spearman's Rho (non-parametric) tests were conducted and compared.

Fourth, there is not a predefined set of common definitions or terminology applied across organizational and institutional studies on institutional change, PWB, work absence, and presenteeism. For example, the organizational outcomes sickness absence and presenteeism have suffered from lack of definition clarity, i.e., meanings have been conflated and blurred with their antecedents and outcomes. This confusion can lead to method error and questionable study results. In this study SA and presenteeism were defined clearly to reduce any ambiguity in their meaning and they were measured directly with single questions based on these definitions. Another attribute of this study to overcome this challenge is that presenteeism has been studied directly rather than it being inferred from productivity loss. However, the single question measurement of SA represents a limitation as the value of the voluntary/involuntary topology is not well established. It is not clear, for instance, that different determinants are required to explain voluntary and involuntary absences from work. Previous research results (Chadwick-Jones, Nicholson, and Brown, 1982) show that there are the strong correlations between short-term absences (1-2 days) and the worst day index, which

support the short-term measure as a sensitive indicator of voluntary absences. The correlations of turnover with time lost, frequency, and short-term absences are 0.12, 0.35, and 0.49 (significant at 0.05) respectively. A review by Gellatly and Luchak (1998) illustrates the issues in the measurement of volitional and non-volitional absence. For example, a respondent indicating 6 separate 1 day absences (short term and volitional) may also be reported as 1 incident lasting 6 days (non-volitional). The single question used in this study does not allow for the distinction in the type of workplace absence being reported. The values may not accurately represent what was intended to be measured. Demonstrating the value of this topology will require a sophisticated causal model, plus valid and reliable measures of voluntary and involuntary absences. Although this study was not seeking to establish the value of the voluntary/involuntary topology the potential for SA to be influenced by volitional absence remains a potential limitation and a possible reason for the poor results with respect to this outcome variable.

Fifth, although the research findings on organizational practices, employee WB, and organizational performance productivity, absenteeism, and turnover are closely tied to the concepts of interest in this proposed study, there are some methodological limitations in the literature that pose some challenges to establishing inferences for this study. At the beginning of this research endeavour a conceptual definition and a means to empirically operationalize the concept individual institutional legitimacy judgements was not available. To make this study a reality an instrument to measure this concept was designed and tested for its content validity. Additionally, conducting exploratory factor analysis on the instrument was required in order to establish internal construct validity, answer the research question satisfactorily, and lay a foundation for establishing external construct validity. Another challenge is that WB at work has largely been reduced to job satisfaction and the dimensions of PWB have been notably absent in workplace studies. As discussed earlier, in part this may be due to the fact that the construct validity of prominent PWB instruments has been contested in the literature. To overcome this challenge a new measure of PWB (Diener et al. 2009,

2010) with established reliability and validity was used. These limitations, although not totally eradicated, have been addressed in a systematic and explicit manner in this study in order to add substance to the existing body of knowledge.

The final and sixth potential limitation identified by Ozminkowski and Goetzel (2001) is self-reporting bias. In this study, however, it is believed self-reporting bias was minimal because the majority of questionnaire items did not require extensive recall or involve highly sensitive questions. The questions most susceptible to bias are for sickness absence and presenteeism since the recall time is twelve months. It is known that distortion occurs in the self-report estimations of presenteeism due to the associated productivity loss and also that reporting of days absent are frequently underreported (Johns, 1991). Self-report bias in most health-related research on sickness absence and presenteeism has stemmed from self-reported illness and self-reported productivity and results have often been contradictory. The definitions of sickness absence and presenteeism recognize the subjectivity of people's evaluation of their own health status (Fleten, Johnsen, & Førde, 2004; Kaplan & Baron-Epel, 2003) and this defies standardization (and control) of data gathered. Further, studies about sickness absence and presenteeism would accommodate individual differences in the tendency for self-disclosure of chronic illness at work (Munir, Leka, & Griffiths, 2005), perceptions of how work affects their health (Ettner & Grzywacz, 2001), and how individual's health affects their work and productivity (Johns, 2010). One way to directly address self-report bias for concepts like SA is to cross check employee's self-reports with HR records and in hindsight this may have reduced this concern. Nonetheless, this has privacy concerns and it is not possible to verify presenteeism with HR records since it is not routinely reported or tracked. There are other methodological challenges associated with measuring SA and presenteeism that can affect self-report bias. For example, scales designed to measure frequency often imply (incorrectly) what frequency of behavior is normal (Schwarz, 1999). Despite these concerns, Johns (1994) recommends using open ended questions for these variables within reasonable recall frames.

In addition to the aforementioned concerns associated with research on this topic, there are a couple of general limitations of institutional change and healthy workplace research. The seventh limitation is that research on change and workplace initiatives is typically limited in scope. For example, although the definition of a healthy workplace includes both employee PWB and organizational outcomes, few have considered the interrelationships between institutions, organizations, and employees. Even though context is often theorized to be the foundation on which successful organizations are built, it is rarely studied or controlled in research designs (Merrill, Aldana, Pope, Anderson, Coberley & Whitmer, William, and the HERO Research Study Subcommittee, 2012). Ozminkowski and Goetzel (2001) claim that instead of simply theorizing about the role of context in implementation effectiveness, it would be beneficial to study it as a central variable. Although there is much work to be done on the new IILJS it does provide a way to operationalize context and the effects it has on individuals and organizations.

Confirmation bias is the eighth possible limitation of the study. Confirmation bias refers to the fact that potential respondent biases, that is, a tendency to favor a particular belief (Plous, 1993), might constitute a systematic error. This is common when using survey responses from the same source because a single respondent for each survey can only yield one perspective. The literature supports that positive bias is part of the judgment formation and use stage in legitimacy judgement (Tost, 2011). Others within the same organization may perceive conditions to be significantly different. Thus, there might be spurious correlations (Bagozzi, 1980). Following Podsakoff, P. M., MacKenzie, Lee, & Podsakoff, N. P (2003), several precautions were taken to minimize the effects of common method bias. The predictor variables and outcome variables were separated into different sections of the survey instrument with explicit explanations and transitions and the answers were formatted with different wording to the Likert scale. There is also researcher confirmation bias whereby outcome expectations (i.e., propositions, hypothesis) of the research create a selective collection of evidence to support the belief while ignoring or rejecting evidence that supports a

different concept. The researcher must be aware and guard against a self-fulfilling prophecy approach to avoid type one errors (Darley, Gross & Paget, 2000). Being as objective and reflective as possible during data analysis and interpretation of results is imperative.

The ninth limitation relates to the IILJ scale not having external construct validity. Content validity and internal construct validity were established through appropriate testing. The EFA indicated that items clustered into three factors which are interpretable according to the theoretically proposed dimensions. Thus, the measure reflects the number of different dimensions consistent with the concept (i.e., it is isomorphic with conceptual variables). However, it does not support validity by external association. Although internal association was achieved this is not adequate to determine the construct validity of an instrument and validity testing is required to test for external association.

The correlational study design, although valuable for theory building, represents the tenth limitation. Because the data are cross-sectional in nature, causal inferences cannot be made regarding the effects of measured variables. For example, rather than concluding that IILJs cause an increased incidence of presenteeism, it is more appropriate to conclude that IILJ tend to be negatively related to values of reported presenteeism. Thus, only correlational inferences can be drawn in this study.

Other limitations can be speculated upon. For example, study participants were from the main campus at BCU which may be a reasonable exemplar for other PSEIs but may not provide a representative sample of other industry groups. Additionally, the population includes a larger than average proportion of female and professional workers. Because selection bias is a common risk, further research beyond this study is recommended to assess the external validity of the study findings (Ozminkowski & Goetzel, 2001). Lastly, Ryan & Deci (2001) identify that there is considerable spillover in the state of individual's WB from one life domain to another. This may also be true for individual institutional legitimacy judgements as both of these variables are highly

contextual and subjective. However, this study is exploratory for the purposes laid out in Chapter 1 and it is recognized this delimits the findings to this particular research endeavour.

5.4. Practical Implications

The results of the current study are relevant to organizational and institutional practitioners. First, the model can be used as a guide to assess employees IILJs and PWB to help strategize for improved organizational functioning. The IILJ can be used as a barometer to learn the reactions and sensitivities of employees to institutional changes and what the impacts might be for organizational functioning. IILJs had a negative and significant correlation to the organizational outcome presenteeism which relates to reduced employee productivity. Thus lower IILJs relates to higher presenteeism and productivity loss. Although this study looked at the effects of IILJs on SA and presenteeism, different outcomes may be of interest to organizational managers. Likewise, the PWB flourishing scale used in this study (Diener, et al., 2009, 2010) does indicate the level of resilience or psychological hardiness that employee's exhibit and this may be studied as a predictor or an outcome. PWB had a negative and significant relationship with presenteeism behaviour therefore as a resource intrinsic to employees, it is an important predictor of organizational functioning. If employee PWB is low or reduced over time, presenteeism will increase. With employees attending work while sick there is a potential productivity loss and overall decrease in organizational effectiveness, therefore managers should be concerned about the threat this poses to organizational functioning. If this is accompanied by low or reduced IILJ then organizational sustainability within the institutional field may be at risk given the current PSEI climate of high competition and scarce resources (Jones & Young, 2004).

Second, the concept of presenteeism and its productivity loss implications are of particular interest to managers and although the roots of the issues presented in this study are political and

systemic in nature they do pose threats to PSEIs. Since PSEIs are valued entities (Gumport, 2000) governments and managers ought to be interested in how to make them stable and robust in response to external events (Coaldrake, Stedmann, & Little, 2003). Managers and political leaders can use the knowledge gained in this study about the effects of IILJs and PWB to better manage institutional change and support employees who are experiencing the deinstitutionalization effects of change within the sector. Learning how best to institute a system that is intrinsically and instrumentally beneficial to institutional stakeholders (like employees) is of practical use to managers and leaders to ensure PSEI benefits are real and sustainable. Thriving employees are a necessary ingredient for this to occur. As mentioned in the introduction of this study public Post-Secondary Education institutions are based on a model devoted to "the development of individual learning and human capital, the socialization and cultivation of citizens and political loyalties and the preservation of knowledge and the fostering of other legitimate pursuits for the nation-state " (Gumport, 2000, p. 74). Students, employees, communities, and society at large stand to gain from healthy employees, organizations, and ultimately, well-functioning PSE institutions.

Third, PSEIs may be interested in comparing different campuses or other organizations (i.e., PSE partners or those in the larger institutional field) in terms of the concepts studied in this research project. Such an approach would allow an organization to compare specific similarities and differences and examine different practices in use that may be related to greater or lesser predictor or outcome values. This would allow managers to gain insight into how effectively they are managing their human resources and their institutional risk.

Fourth, pending IILJ construct validity testing, model 1 could also be used by PSEIs and government leaders prescriptively to gauge their current outcome effectiveness. Employee IILJ and PWB may well influence several organizational outcomes. Based on their analysis, they could identify areas of concern (i.e., relational, instrumental, moral) and target these specific areas for

improvement to boost organizational functioning, improve outcomes, and prevent an approach that may be poorly defined and wasteful of current limited resources.

Fifth, given the strong theoretical foundation of presenteeism being related to productivity loss and the hidden nature of this (i.e., iceberg effect), it seems prudent for managers to strategize on how to keep IILJ and PWB as high as possible. The fact that these two predictor variables are positively oriented presents them as important organizational resources as they have the potential to predict presenteeism (i.e., when they are high presenteeism is decreased). Johns (2010) claims that when a worker attends work when ill, existing medical conditions may be aggravated and worsen, the quality of work life may decline, and perceptions of work productivity, by self and others, may result in an overall impression of ineffectiveness at work (Johns, 2010). The long term effects of repeated or continued presenteeism behaviour leads to a continuum of extended sickness absence and eventual work withdrawal. This may detract from healthy organizational functioning in several ways (i.e., productivity loss, cost increase, spill over burden to other workers, reduced continuity in service delivery, and reduced quality of services). If it is important to them, this research endeavour offers managers and political leaders in the post-secondary sector a means to assess organizational functioning from an insider's perspective. Information gathered from such assessments can be used to develop targeted interventions to support thriving and sustainable institutions.

5.5. Directions for Future Research

In order to truly understand and be able to model the relationship between IILJ, PWB, SA, and presenteeism, we must be able to examine each from different perspectives. The full or composite scale of IILJs and its refinement may be of interest to future researchers. Further, the sub-scales that comprise the scale may be of epistemological interest for particular inquiries. However, if the IILJS is to have future utility, its construct validity will have to be established. A research endeavour on its relationship with other constructs is necessary for determining construct validity by external

association. The extent to which IILJS fits in an acceptable way into a network of relationships that are expected on the basis of theory would support its construct validity. For example, a sample of the theoretical network that measures concepts related to the IILJ scales include instruments to measure: Distributive and Procedural Justice (Kim, Price, Mueller &Watson, 1996; McFarlin & Sweeney, 1992); Organizational Commitment (Meyer, Allen, & Smith, 1993); Power (Hinkin & Schriesheim, 1989); Work Autonomy (Breaugh, 1985, 1987, 1989), and; System Justification Theory (Jost, Banaji & Nosek, 2004). Several theoretically derived hypotheses involving the measurement of the IILJS in relation to predictions from multiple different studies would help support or thwart its construct validity. If across several studies with a variety of diverse theories a pattern of consistent findings emerges by different researchers then it is possible to establish construct validity of the instrument (i.e., using a convergent and/or discriminant approach) (Brink and Woods, 1998). Such an approach could help further refine our understanding of the dimensionality of IILJs and related concepts. For practitioners, it can provide a more thorough understanding of the scale's utility and provide terminology that can be used to more effectively communicate with organizational stakeholders, both within and across organizational boundaries.

A major finding of this study was that IILJ and PWB were shown to be negatively and significantly correlated to presenteeism. Although negatively associated with SA they were not shown to be a significant predictor of it. Further, the interaction effects of these two predictors did not contribute to the variance of either of the outcomes in a significant way. Follow-up studies at different institutions and/or with different populations are necessary to continue investigations into the nature of the relationships reported. Because of the findings in this study, it would be useful for future research to examine the same outcome behaviours with the addition of other instruments that specifically measure the impact on organizational productivity and costs. The literature revealed that presenteeism and productivity tend to be conflated and because they have not been examined as

separate concepts within the same study the true impact of presenteeism is not known. For future development, a self-report outcome of presenteeism could be compared with other instruments measuring productivity. For example, the work limitations questionnaire (WLQ) (Lerner, Amick III, Rogers, Malspeis, Bungay & Cynn, 2001) and the productivity measure (Brinkerhoff & Dressler, 1990). It would also be useful for a researcher to compare the results of the World Health Organization's (WHO) health and work performance questionnaire (HPQ) (Kessler, Ames, Hymel, Loeppke, McKenas, Richling & Ustun, 2004) to examine the indirect workplace costs of illness in comparison to self-report measures of SA and presenteeism. Not only would this add some clarity to the implications of these outcomes for organizations but it would extend our understanding of how SA and presenteeism relate to one another.

Since IILJ, and to a lesser extent, PWB, were found to be a significant predictor of presenteeism in this study, it would be useful if the regression analysis could be replicated to substantiate these findings with similar or different populations. Further research could be conducted to extend the regression testing by using different covariates in the models. In addition to what is reported here, it would be interesting for future research to focus on other explanatory indicators that can explain possible variance in presenteeism and use these in a comparative analysis to build a robust theoretical model on presenteeism. Possible comparative variables may include some of the theoretical measures suggested to establish construct validity for the IILJ scale (i.e., distributive and procedural justice construct, system justification construct). Well studied comparative predictive variables for the PWB measure could include Ryff's (1989) PWB scale or Deci and Ryan's (1985) Self Determination Theory (SDT) scale. The specific concept of PWB (vs. WB) also bears further exploration within the organizational context. Studies that examine different institutions and various populations of employees to investigate the nature of the impact of IILJs and PWB on the worker

experience during institutional changes are important for improving individual, organizational, and societal outcomes.

It would also be fruitful for additional studies to be conducted with the purpose of identifying what effective countermeasures or interventions might look like given a particular set of conditions regarding boosting employee IILJ and PWB. The literature has some suggestions about what influences employee WB at work but IILJ is a relatively new concept in organizational studies.

Finally, although alluded to above, it is recommended that researchers replicate this study with other PSEIs or other institutional contexts. Because the IILJS is new, value will be added to the research agenda if, in future studies, instruments of data collection are reported so that others interested in this line of research may continue to replicate them. The explicit reporting of correlation matrices, detailed information about the results of factor analysis, and descriptive statistics (means and standard deviations) for the measures are useful for other researchers wishing to study the concepts in this research endeavour. Without replication theoretical models cannot be constructed and tested efficiently and quality research is not published.

5.6. Conclusion

The purpose of this study was to learn the relationships and effects among the concepts of individual institutional legitimacy judgements, employee PWB, and the organizational outcomes of sickness absence (SA) and presenteeism. The primary objectives were: to determine the independent effects of the predictor variables, IILJ and PWB, on the organizational outcomes, SA and presenteeism and; to determine if the PWB has a moderating effect on the organizational outcomes.

The results and analysis of the findings indicate that the research question was answered and the two primary objectives were met. PSE managers and organizations can use these results to assess their current employee and organizational functioning. Specifically, areas that represent employee or

organizational functioning concerns can be targeted for strategic planning and action to increase organizational effectiveness. If the models are applied across several PSEIs or campuses within one institution, comparisons can be drawn across counterparts with the same size and characteristics within the industry. The approach taken in this study and the instruments used may be a useful tool for political or regulatory leaders who are interested in supporting thriving and effective PSEIs. Institutions who are achieving high levels of employee IILJs and PWB can be used as exemplars to improve organizational outcomes like presenteeism. These management practices and approaches can be examined and incorporated into other PSEIs strategic plans.

IILJ and PWB models are seldom seen in organizational and institutional research. The method used in this research can be used to explore the complex systemic influences that exist in institutions and organizations. Although theoretical grounding of the concept presenteeism is limited, it has been correlated to productivity loss in previous research and the significant negative relationship it has with the predictors bears closer inspection. Although previous research and theorizing on the concepts studied have acted as a scaffold, the difficulty associated with understanding the importance of the research findings rests with the new direction this study has forged. Another challenge was the relatively low response rate. Generalization of the results is viewed with caution although the sample was well represented across the population of the PSEI studied. The unique approach to studying institutional changes at the micro level has been an important contribution, and, combined with the empirical evidence and knowledge gathered in this research, it has helped to refine our understanding of the relationship between macro institutional changes and individual employee and organizational functioning.

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APPENDIX

Appendix A

Introductory Letter - Content Validity Study for Institutional Legitimacy Judgements

Athabasca University
FACULTY OF BUSINESS

From: Andrea Smilski
Sent: April-24-15 11:43 AM
To: [redacted]
Subject: my research project

Dear colleague,

As part of my doctoral research I have designed an instrument to measure one of my concepts of interest: individual institutional legitimacy judgments. Although this concept has been theorized in the literature, an instrument to measure its content does not currently exist. Based on scholars conceptual theorizing I have crafted a tool and am testing it before beginning my main research. In essence I need to establish its content validity prior to conducting my research on employees at a Post-Secondary education organization.

Because Post-Secondary Education (PSE) organizations are typically highly institutionalized, employees working in PSE are seen as suitable panel members for this study. In addition, it is noted from your University profile that you have your PhD and have conducted social science research. You are 1 of 4 people I hope to engage in this study as a panel expert.

The survey does not ask you to judge the legitimacy of your own organization. It asks you to evaluate the content of instrument itself.

If you are willing to participate in this study please respond by replying with AGREE in the subject line. If not, please put DISAGREE in the subject line. If you agree, I will send you an introductory email with a live link to the survey. Please do not feel obligated to participate in any way but let me know your decision as soon as possible.

The survey will take approximately 30 minutes to complete. Thank you for considering this request. Your input represents a level of expertise that is particularly important for the purpose of this study.

Regards,
Andrea
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Appendix B

Content Validity Study-

To Design a Scale to Measure Individual Institutional Legitimacy Judgement Scale

A Web based Survey. The link will be sent by email.

INTRODUCTION

You are invited to participate in a survey to assess the content validity of a proposed measurement tool. The survey will take approximately 30 minutes to complete.

In this survey, you are 1 of 4 people who will be asked questions about the content of a proposed tool to measure employee's *legitimacy judgements* of their Post-Secondary Education workplace. You are not being asked to evaluate your own workplace but are being asked to help validate an empirical measurement tool for this purpose.

The online survey is hosted by a web survey company located in the USA and is subject to the US Patriot Act. All responses to the survey questions will be stored and accessed in the USA. You will not be asked for personal identifiers or any information that may be used to identify you. Your information will be coded and remain confidential. All survey responses will be strictly confidential and data from this research will be reported only in the aggregate. The security and privacy policy for the web survey company can be found at the following link: https://www.questionpro.com/security/ .

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you can withdraw from the survey at any point. If you have questions at any time about the survey or the procedures, you may contact the researcher Andrea Smilski at (250)-619-7435 or email Andrea.Smilski@viu.ca . If at any time during the study you would like additional information from someone other than the researcher, please feel free to contact the research supervisor Dr. Kay Devine at (250)-380-2508 or email Kay.Devine@fb.athabascau.ca .

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this study, please contact the Office of Research Ethics at 1-800-788-9041, ext. 6718 or by e-mail to rebsec@athabascau.ca .

Once you begin the survey your answers cannot be saved so please give yourself adequate time to complete it.

If you agree to participate please check the AGREE box below.

□ I AGREE

Please start with the survey now by clicking on the CONTINUE button below.

CONTINUE

INSTRUCTIONS

Your participation in this survey will provide feedback on the content validity of a proposed measure for the concept institutional legitimacy judgements.

The theoretical definition for the concept legitimacy judgement is:

> *A generalized perception of organizational actions as "desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995, p. 574).*

INSTRUCTIONS FOR RATING ITEMS

The survey has 3 sections. The rating instructions are as follows:

Section 1 - Please rate the level of clarity for each item (i.e., how clear is the item being measured?) on a scale of 1 – 4, with 4 being the most clear. Space is provided for you to comment on the item or to suggest revisions.

Section 2 - Please indicate to which factor the item belongs. The factors are listed along with a definition of each. If you do not think the item belongs with any factor specified, please check other and write in a factor that you think may be more suitable. Again, please provide a brief explanation in the space provided.

Section 3 - Finally, evaluate the comprehensiveness of the entire measure by indicating items that should be deleted or added.

At the beginning of each section the rating instructions are repeated. Please answer all questions as honestly as you can.

SECTION 1 - CLARITY

Please rate the level of clarity on a scale of 1 – 4, with 4 being the most clear. Please use "comment" to expand on your answers.

Item 1- I feel like my ethical morals are congruent with the organizations.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 2 - I voluntarily accept 90% of the decisions made by my organizational supervisors.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear

4. 4= Item is clear

Comment:

Item 3 - I do not feel my organization provides me with the necessary resources to be efficient in my job.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 4 - I accept the authority of my organizations supervisors, even if I think they are wrong.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 5 - My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 6 - I agree with approximately 90% of the values that define my organization.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 7 - My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 8 - Organizational supervisors show an interest in being fair to me.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 9 - It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 10 - I follow workplace rules.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 11 - At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 12 - My organization is efficient in delivering what it says it will deliver to me.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 13 - I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 14 - I find it difficult to follow established organizational rules with what I have to work with.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 15 – At least 70% of the practices used by my organizations supervisors are appropriate.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 16 - I experience frustration more than 60% of the time at how supervisors deal with workplace problems.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 17 - I feel loyal to my organization.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 18 - The people I work with do not seem to approve of how I work.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear

4. 4= Item is clear

Comment:

Item 19 - When I am working there are times it is okay to ignore what my organizations supervisor tells me to do.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 20 - I can't depend on my organizational supervisor to help me solve problems in my work.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 21 - I experience satisfaction at how work problems are resolved for 80% of the time.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 22 - My organization is performing as well as other Universities in delivering educational programs.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

Item 23 - My organization exemplifies what a University ought to be.

1. 1= Item is not clear
2. 2= Item needs major revisions to be clear
3. 3= Item needs minor revisions to be clear
4. 4= Item is clear

Comment:

SECTION 2 - FACTORS

Please indicate to which factor the item belongs. The factors are listed below along with a definition of each. If you do not think the item belongs with any factor specified, please check "other" and write in a factor that you think may be more suitable with a brief explanation.

Factors and Definitions:

1. Instrumental: Instrumental judgement refers to whether the organization: provides for the material or self-interests of employees; provides its employees with the necessary resources to be efficient and effective, and; is effective and efficient in delivering what it says it will deliver to employees. If these conditions are met, obeying the organizational supervisors is typically warranted, even when there is disagreement.

2. Relational: Relational judgement refers to the degree of fit between the employee and their organizations values, beliefs, and practices. It also relates to whether the organization treats its employees with dignity, respect, and acceptance and provides employees with the rewards and benefits they are entitled too. Employee satisfaction in work relations (or not) is indicated.

3. Moral: Moral refers to whether the organization's morality and ethicality is congruent with an employee's moral and ethical values. It also relates to an organization's demonstrated integrity and dependability in decision making, problem solving, social welfare, and perceived fairness. Employee loyalty (or not) is indicated.

Other, please specify _____

Item 1- I feel like my ethical morals are congruent with the organizations.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 2 - I voluntarily accept 90% of the decisions made by the organizational supervisors.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 3 - I do not feel my organization provides me with the necessary resources to be efficient in my job.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 4 - I accept the authority of my organizations supervisors, even if I think they are wrong.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 5 - My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 6 - I agree with approximately 90% of the values that define my organization.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 7 - My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 8 - Organizational supervisors show an interest in being fair to me.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 9 - It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 10 - I follow workplace rules.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 11 – At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 12 - My organization is efficient in delivering what it says it will deliver to me.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 13 - I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 14 – I find it difficult to follow established organizational rules with what I have to work with.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 15 – At least 70% of the practices used by my organizations supervisors are appropriate.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 16 - I experience frustration more than 60% of the time at how supervisors deal with workplace problems.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 17 - I feel loyal to my organization.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 18 - The people I work with do not seem to approve of how I work.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 19 - When I am working there are times it is okay to ignore what my organizations supervisor tells me to do.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 20 - I can’t depend on my organizational supervisor to help me solve problems in my work.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 21 - I experience satisfaction at how work problems are resolved for 80% of the time.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 22 - My organization is performing as well as other Universities in delivering educational programs.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

Item 23 - My organization exemplifies what a University ought to be.

1. 1= Instrumental
2. 2= Relational
3. 3= Moral

Other:

SECTION 3 – COMPREHENSIVENESS

Please evaluate the comprehensiveness of the entire measure. This section has two questions. The first question asks if any of the 23 items should be deleted. The second question asks if any items should be added.

Of the 23 items listed below, do you think any should be deleted? If so, please check the number (i.e., 1, 5, 12, 20) of the item. Please provide a brief explanation.

- Item 1- I feel like my ethical morals are congruent with the organizations.
- Item 2 - I voluntarily accept 90% of the decisions made by the organizational supervisors.
- Item 3 - I do not feel my organization provides me with the necessary resources to be efficient in my job.
- Item 4 - I accept the authority of my organizations supervisors, even if I think they are wrong.
- Item 5 - My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.
- Item 6 - I agree with approximately 90% of the values that define my organization.
- Item 7 - My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.
- Item 8 - Organizational supervisors show an interest in being fair to me.
- Item 9 - It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.
- Item 10 - I follow workplace rules.
- Item 11 - At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.
- Item 12 - My organization is efficient in delivering what it says it will deliver to me.
- Item 13 - I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.
- Item 14 - I find it difficult to follow established organizational rules with what I have to work with.

- Item 15 - At least 70% of the practices used by my organizations supervisors are appropriate.
- Item 16 - I experience frustration more than 60% of the time at how supervisors deal with workplace problems.
- Item 17 - I feel loyal to my organization.
- Item 18 - The people I work with do not seem to approve of how I work.
- Item 19 - When I am working there are times it is okay to ignore what my organizations supervisor tells me to do.
- Item 20 - I can't depend on my organizational supervisor to help me solve problems in my work.
- Item 21 - I experience satisfaction at how work problems are resolved for 80% of the time.
- Item 22 - My organization is performing as well as other Universities in delivering educational programs.
- Item 23 - My organization exemplifies what a University ought to be.

Explain:

If you think important items ought to be added please specify the content of your suggestion here and the factor it would relate to (i.e., instrumental, relational, moral).

Appendix C

Introductory Letter and Reminders for Structured Questionnaire- Main Study

From: Andrea Smilski
Sent: 10/09/2015
To: [redacted]
Subject: Research Participation Request

Athabasca University
FACULTY OF BUSINESS

Dear Colleague,

As some of you may already know, in addition to being Associate Dean of the Faculty of Health and Human Services (HHS) at Vancouver Island University (VIU), I am also a doctoral student in the Faculty of Business at Athabasca University (AU). I am writing this email to request your participation in my Doctoral research project entitled:

The Effects of Individual Institutional Legitimacy Judgements and Employee Psychological Wellbeing on the Organizational Outcomes Sickness Absence and Presenteeism

My research supervisor is Dr. Kay Devine and if you would like additional information from someone other than me, the researcher, please feel free to contact Dr. Kay Devine at (250)-380-2508 or email Kay.Devine@fb.athabascau.ca . This study has been reviewed by the AU Research Ethics Board (REB) and the VIU REB. Any comments or concerns may be directed to the Office of Research Ethics at: AU, 1-800-788-9041, ext. 6718, email at rebsec@athabascau.ca , or; VIU, 1-800-920-2221 (ext. 2665), email at reb@viu.ca .

There have been many changes to Post-Secondary Education Institutions (PSEIs) in the last two decades. The effects the changes have had on Post Secondary Education (PSE) employees and their organizations are not known. This study intends to partially fill this knowledge gap.

The questionnaire, which will take approximately 30 minutes to complete, asks you to judge the legitimacy of your own institution, reflect on your psychological wellbeing at work, and report on your sickness absence and presenteeism. Definitions are provided in the questionnaire to reduce any ambiguity about the concepts that are being studied. The data will be collected anonymously.

The online questionnaire is hosted by a web survey company located in the USA and is subject to the US Patriot Act. All responses to the survey questions will be stored and accessed in the USA. The data will be collected anonymously. You will not be asked for personal identifiers or any information that may be used to identify you. Your information will be coded and remain confidential. I will not receive any identifying information about participants. All survey responses will be strictly confidential and data from this research will be reported only in the aggregate. The security and privacy policy for the web survey company can be found at the following link: https://www.questionpro.com/security/ .

Your participation in this study is voluntary. Please do not feel obligated to participate in any way. If you are willing to participate in this study, have worked at VIU for 6 mos. or more, are 18 years or older, and a regular employee (part or full time), please respond by proceeding to the <ANONYMOUS_SURVEY_LINK> here.

Once you open the questionnaire each of the four (4) sections (A, B, C, and D) are briefly explained. Your answers cannot be saved so please give yourself adequate time to complete the questionnaire.

If you do not respond within a week to this initial invitation to participate in the study you will receive two reminder emails to complete it.

Thank you for considering this request. Your input is greatly appreciated. <ANONYMOUS_SURVEY_LINK>

Regards,
Andrea

Andrea Smilski, RN, BScN, MBA, Doctoral Candidate,
Faculty of Business, Athabasca University
Andrea_Smilski@fb.athabascau.ca

Athabasca University
FACULTY OF BUSINESS

This is the first reminder inviting BCU employees to participate in my research project. The reminder dates were pre-set and emails were sent from the independent third party server, QuestionPro.

Send it to a List: Create List from BCU HR and input into QuestionPro. Distribution list name - "regular employees"
Subject: Survey/Questionnaire Invitation Follow-up
Date sent: 10/16/2015

Dear Colleague,

This is the first of two reminders inviting you to participate in my doctoral research survey. As some of you may already know, in addition to being Associate Dean of the Faculty of Health and Human Services (HHS) at Vancouver Island University (VIU), I am also a doctoral student in the Faculty of Business at Athabasca University (AU). My doctoral research project is entitled:

The Effects of Individual Institutional Legitimacy Judgements and Employee Psychological Wellbeing on the Organizational Outcomes Sickness Absence and Presenteeism.

My research supervisor is Dr. Kay Devine and if you would like additional information from someone other than me, the researcher, please feel free to contact Dr. Kay Devine at (250)-380-2508 or email Kay.Devine@fb.athabascau.ca .

This study has been reviewed by the AU Research Ethics Board (REB) and the VIU REB. Any comments or concerns may be directed to the Office of Research Ethics at: AU, 1-800-788-9041, ext. 6718, email at rebsec@athabascau.ca , or; VIU, 1-800-920-2221 (ext. 2665), email at reb@viu.ca .

There have been many changes to Post-Secondary Education Institutions (PSEIs) in the last two decades. The effects the changes have had on Post Secondary Education (PSE) employees and their organizations are not known. This study intends to partially fill this knowledge gap.

The questionnaire will take approximately 30 minutes or less to complete. You will be asked to judge the legitimacy of your own institution, reflect on your psychological wellbeing at work, and report on your sickness absence and presenteeism. Definitions are provided in the questionnaire. The data will be collected anonymously.

Your participation in this study is voluntary. If you are willing to participate in this study, have worked at VIU for 6 mos. or more, are 18 years or older, and a regular employee (part or full time), please respond by proceeding to the <ANONYMOUS_SURVEY_LINK> here.

Once you open the questionnaire each of the four (4) sections (A, B, C, and D) are briefly explained. Your answers cannot be saved so please give yourself adequate time to complete the questionnaire.

You will receive one more email reminder to complete the survey. Thank you for considering this request. Your input is greatly appreciated. <ANONYMOUS_SURVEY_LINK>

Regards, Andrea

Andrea Smilski, RN, BScN, MBA, Doctoral Candidate,
Faculty of Business, Athabasca University
Andrea_Smilski@fb.athabascau.ca

Athabasca University
FACULTY OF BUSINESS

This is the second (and final) reminder inviting BCU employees to participate in my research project. The reminder dates were pre-set and emails were sent from the independent third party server, QuestionPro.

Send it to a List: Create List from BCU HR and input into QuestionPro. Distribution list name - "regular employees"
Subject: Survey/Questionnaire Invitation Follow-up
Date sent: 23/10/2015

Dear Colleague,

This email is the final invitation and reminder to participate in my doctoral research project entitled:

The Effects of Individual Institutional Legitimacy Judgements and Employee Psychological Wellbeing on the Organizational Outcomes Sickness Absence and Presenteeism

Your help in achieving a representative response rate at a Post Secondary Educational institution is needed. If you can spare 15-30 minutes please click on the survey here <ANONYMOUS_SURVEY_LINK>

If you have already completed the survey - thank you- and I apologize for the repeated contact.

The literature identifies that in the recent past there have been many changes to Post-Secondary Education Institutions (PSEIs) worldwide. The effects the changes have had on Post Secondary Education (PSE) employee and organizational functioning is not clear. The aim of my research is to better understand this phenomenon.

The questionnaire asks you to judge the legitimacy of your own institution, reflect on your psychological wellbeing at work, and report on your sickness absence and presenteeism. Definitions are provided in the questionnaire. The data will be collected anonymously.

Your participation in this study is voluntary. If you are willing to participate in this study, have worked at VIU for 6 mos. or more, are 18 years or older, and a regular employee (part or full time), please respond by proceeding to the <ANONYMOUS_SURVEY_LINK> here.

Once you open the questionnaire each of the four (4) sections (A, B, C, and D) are briefly explained. Your answers cannot be saved so please give yourself adequate time to complete the questionnaire.

My research supervisor is Dr. Kay Devine and if you would like additional information from someone other than me please feel free to contact Dr. Kay Devine at (250)-380-2508 or email Kay.Devine@fb.athabascau.ca . This study has been reviewed by the AU Research Ethics Board (REB) and the VIU REB. Any comments or concerns may be directed to the Office of Research Ethics at: AU, 1-800-788-9041, ext. 6718, email at rebsec@athabascau.ca, or; VIU, 1-800-920-2221 (ext. 2665), email at reb@viu.ca .

Thank you for your help in conducting my research. Your input is greatly appreciated.
<ANONYMOUS_SURVEY_LINK>

Regards,

Andrea
Andrea Smilski, RN, BScN, MBA, Doctoral Candidate,
Faculty of Business, Athabasca University
Andrea_Smilski@fb.athabascau.ca

Appendix D

Structured Questionnaire
A Web based Questionnaire. The link will be sent by email.

INTRODUCTION

You are being invited to participate in a Doctoral research project entitled:

The Effects of Individual Institutional Legitimacy Judgements and Employee Psychological Wellbeing on the Organizational Outcomes Sickness Absence and Presenteeism.

There have been many changes to Post-Secondary Education Institutions (PSEIs) in the last two decades. The effects the changes have had on Post Secondary Education (PSE) employees and their organizations are not known. This study proposes to examine this.

The questionnaire, which will take approximately 30 minutes to complete, asks you to judge the legitimacy of your own institution, reflect on your psychological wellbeing at work, and report on your sickness absence and presenteeism. The data will be collected anonymously.

Your participation in this study is voluntary. If you are willing to participate in this study, have worked at VIU for 6 mos. or more, are 18 years or older, and a regular employee (part or full time), please respond by clicking the "I Agree" box below and proceed with the questionnaire.

Once you open the questionnaire each of the four (4) sections (A, B, C, and D) are briefly explained. Your answers cannot be saved so please give yourself adequate time to complete the questionnaire.

Thank you for considering this request. Your input is greatly appreciated. .

□ I AGREE. Please start with the questionnaire now by clicking on the CONTINUE button below.

CONTINUE

SECTION A- INDIVIDUAL INSTITUTIONAL LEGITIMACY JUDGEMENT (IILJ) QUESTIONS

When organizations or institutions undergo changes employees may experience conflicts or tensions in their workplace values, beliefs, decisions or behaviours. These tensions may lead individual employees to question and judge how their professional, personal, and social expectations fit with the day to day reality of their work.
To reduce any ambiguity about the concept legitimacy judgement a definition is provided here.

A generalized perception of organizational actions as "desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995, p. 574).

Conversely, illegitimacy judgement is the opposite whereby generalized perceptions of organizational actions are seen as undesirable, improper or inappropriate within some socially constructed system of norms, values, beliefs and definitions.

Some general statements are provided below that, when answered, will provide information about how you perceive the legitimacy of your organization. Please answer the questions as honestly as you can.

ABOUT MY ORGANIZATION

The following questions concern your perceptions and judgements about the PSE organization you have worked at during the last year. (If you have been on this job for less than a year, this concerns the entire time you have been at this job.)

Please indicate how true each of the following statement is for you given your experiences at your organization. Remember that your responses to the questions are confidential. Please use the following scale in responding to the items and "click" on your answer.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

1. I feel like my ethical morals are congruent with the organizations.

2. I voluntarily accept 90% of the decisions made by my organizational supervisors.

3. I do not feel my organization provides me with the necessary resources to be efficient in my job.

4. I accept the authority of my organizations supervisors, even if I think they are wrong.

5. My organization does not demonstrate integrity (i.e., honesty, cohesion) in work related decision making.

6. I agree with approximately 90% of the values that define my organization.

7. My views on issues at work are dissimilar to 90% of the views held by organizational supervisors.

8. Organizational supervisors show a real interest in trying to be fair to me.

9. It is likely that the current way problems are solved by organizational supervisors will lead to a fulfilling workplace.

10. I follow workplace rules.

11. At least 60% of organizational procedures and policies aren't implemented properly and need to be changed.

12. My organization is efficient in delivering what it says it will deliver to me.

13. I trust the organizational supervisors to make decisions that are aligned to the organization's mission statement.

14. I find it difficult to follow established organizational rules with what I have to work with.

15. At least 70% of the practices used by my organizations supervisors are appropriate.

16. I experience frustration more than 60% of the time at how supervisors deal with workplace problems.

17. I feel loyal to my organization.

18. The people I work with do not seem to approve of how I work.

19. When I am working there are times it is okay to ignore what my organizations supervisor tells me to do.

20. I can’t depend on my organizational supervisor to help me solve problems in my work.

21. I experience satisfaction at how work problems are resolved for 80% of the time.

22. My organization is performing as well as other Universities in delivering educational programs.

23. My organization exemplifies what a University ought to be.

SECTION B- PSYCHOLOGICAL WELLBEING (FLOURISHING) QUESTIONS

The Psychological Wellbeing (PWB) scale consists of eight items describing important aspects of human functioning ranging from positive relationships, to feelings of competence, to having meaning and purpose at work. Each item is answered within a range from Strong Disagreement to Strong Agreement.

The following questions concern your functioning at work during the last year. If you have been at your workplace for less than a year (but more than 6 mos.) this concerns the entire time you have been there.

Remember that your responses to the questions are completely confidential.

Using the 1-7 scale provided, please indicate your agreement with each item by "clicking" that response for each item.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Mixed or Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree

1. I lead a purposeful and meaningful work life.
2. My social relationships at work are supportive and rewarding.
3. I am engaged and interested in my daily work activities.
4. I actively contribute to the happiness and wellbeing of others at work.
5. I am competent and capable in the activities that are important to me at work.
6. I am a good employee and do good work.
7. I am optimistic about my future at work.
8. People respect me at work.

SECTION C – SICKNESS ABSENCE (SA) and PRESENTEEISM QUESTIONS

SICKNESS ABSENCE

1. How many days of sick leave have you taken over the last twelve (12) months? _____

PRESENTEEISM

1. How many days have you worked during the last twelve (12) months despite having an illness or an injury?

   _____

SECTION D –DEMOGRAPHIC QUESTIONS

Demographic questions are used to determine what factors may influence a respondent's answers, interests, and opinions. Collecting demographic information will allow comparisons among subgroups.

Please select a single answer:

1. What is your gender?

- Female
- Male

2. Which range includes your age?

- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 or older

3. What is your highest level of education attained?

- Less than high school
- High school degree or equivalent
- College/University diploma or certificate
- College/University Bachelor Degree
- University Master Degree
- University Doctorate Degree

4. What is your area of work?

- Faculty
- Student Affairs
- Central Administration (includes Executive offices, HR, Finance, Payroll, Facilities)
- Registration Services
- Aboriginal Services
- Food and Beverage
- University Relations and Communications
- Information Technology

5. Which Faculty do you work in? (if not in a Faculty please click N/A)

- Sciences
- Trades and Technology

- Business/Management
- Education
- Health and Human Services
- Aboriginal Studies
- Social Sciences
- Arts and Humanities
- International
- Adult Basic Education
- N/A

6. What is the length of your employment at your current organization?

- 6 mos
- 6 mos to less than 1 year
- 1 year to less than 3 years
- 3 years to less than 5 years
- 5 years to less than 10 years
- 10 years to less than 15
- 15 or more years

7. Are you?

- A Union Member
- An Administrator and exempt from the Union

8. If a Union member, which are you affiliated with? (If an exempt employee please click N/A)

- CUPE
- BCGEU
- University Faculty Association
- N/A

9. What type of job do you have?

- Regular, Full-time
- Regular, Part-time

INSTITUTIONAL LEGITIMACY AND ORGANIZATIONAL OUTCOMES

SCORING INFORMATION FOR SCALE QUESTIONNAIRES

SECTION A- INDIVIDUAL INSTITUTIONAL LEGITIMACY JUDGEMENT (IILJ) QUESTIONS

Form three subscale scores by averaging item responses for each subscale after reverse scoring the items that were worded in the negative direction. Specifically, any item that has (R) after it in the code below should be reverse scored by subtracting the person's response from 8. The sub-scales are:

Instrumental: 3(R), 4, 10, 12, 14(R), 19(R), 22

Relational: 2, 6, 7(R), 9, 15, 16(R), 18(R), 21

Moral: 1, 5(R), 8, 11(R), 13, 17, 20(R), 23

Higher average scores represent a perceived higher level of legitimacy. The opposite is true for reversed scores (R). Legitimacy scale - (7-very true, 1-not at all true) or (7= high legitimacy, 1=low legitimacy).

SECTION B- PSYCHOLOGICAL WELLBEING/FLOURISHING (FS) QUESTIONS

Add the responses, varying from 1to 7, for all eight (8) items. The possible range of scores is from 8 (lowest PWB possible, i.e., all questions answered with "1" – Strongly Disagree) to 56 (highest PWB possible, i.e., all questions answered with "7"- Strongly Agree). A high score represents a person or employee with many psychological resources and strengths.

Appendix E

EFA- Correlation Matrix

Correlation Matrix[a]

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23
Correlation	Q1	1.000	.573	-.258	.177	-.509	.675	-.477	.515	.588	.255	-.452	.476	.594	-.421	.569	-.515	.483	-.387	-.152	-.430	.575	.374	.556
	Q2	.573	1.000	-.355	.373	-.442	.624	-.456	.528	.583	.299	-.491	.522	.608	-.481	.586	-.565	.398	-.246	-.223	-.427	.586	.378	.492
	Q3	-.258	-.355	1.000	-.078	.425	-.320	.304	-.299	-.348	-.077	.405	-.436	-.339	.390	-.200	.372	-.253	.300	.252	.344	-.386	-.324	-.375
	Q4	.177	.373	-.078	1.000	.000	.128	-.036	.075	.124	.412	-.165	.037	.249	-.078	.246	-.098	.167	-.064	-.387	-.063	.129	-.006	.090
	Q5	-.509	-.442	.425	.000	1.000	-.487	.649	-.539	-.587	-.075	.496	-.522	-.546	.488	-.405	.532	-.405	.300	.173	.471	-.550	-.422	-.565
	Q6	.675	.624	-.320	.128	-.487	1.000	-.473	.518	.534	.241	-.381	.486	.607	-.404	.602	-.488	.513	-.354	-.077	-.400	.538	.475	.585
	Q7	-.477	-.456	.304	-.036	.649	-.473	1.000	-.581	-.559	-.091	.479	-.458	-.543	.470	-.510	.623	-.355	.346	.143	.537	-.589	-.370	-.467
	Q8	.515	.528	-.299	.075	-.539	.518	-.581	1.000	.708	.214	-.378	.535	.651	-.456	.612	-.687	.413	-.342	-.177	-.645	.662	.441	.580
	Q9	.588	.583	-.348	.124	-.587	.534	-.559	.708	1.000	.173	-.472	.622	.728	-.466	.630	-.690	.421	-.266	-.089	-.613	.737	.446	.583
	Q10	.255	.299	-.077	.412	-.075	.241	-.091	.214	.173	1.000	-.216	.149	.303	-.121	.307	-.123	.308	-.184	-.442	-.068	.150	.170	.230
	Q11	-.452	-.491	.405	-.165	.496	-.381	.479	-.378	-.472	-.216	1.000	-.525	-.532	.482	-.444	.492	-.247	.325	.251	.412	-.445	-.379	-.377
	Q12	.476	.522	-.436	.037	-.522	.486	-.458	.535	.622	.149	-.525	1.000	.657	-.487	.611	-.593	.432	-.320	-.256	-.570	.680	.508	.575
	Q13	.594	.608	-.339	.249	-.546	.607	-.543	.651	.728	.303	-.532	.657	1.000	-.458	.662	-.632	.516	-.331	-.282	-.620	.666	.470	.581
	Q14	-.421	-.481	.390	-.078	.488	-.404	.470	-.456	-.466	-.121	.482	-.487	-.458	1.000	-.336	.502	-.312	.296	.108	.387	-.473	-.344	-.411
	Q15	.569	.586	-.200	.246	-.405	.602	-.510	.612	.630	.307	-.444	.611	.662	-.336	1.000	-.606	.456	-.293	-.231	-.581	.670	.354	.501
	Q16	-.515	-.565	.372	-.098	.532	-.488	.623	-.687	-.690	-.123	.492	-.593	-.632	.502	-.606	1.000	-.381	.331	.137	.671	-.833	-.442	-.526
	Q17	.483	.398	-.253	.167	-.405	.513	-.355	.413	.421	.308	-.247	.432	.516	-.312	.456	-.381	1.000	-.270	-.176	-.328	.484	.323	.512
	Q18	-.387	-.246	.300	-.064	.300	-.354	.346	-.342	-.266	-.184	.325	-.320	-.331	.296	-.293	.331	-.270	1.000	.209	.263	-.363	-.281	-.253
	Q19	-.152	-.223	.252	-.387	.173	-.077	.143	-.177	-.089	-.442	.251	-.256	-.282	.108	-.231	.137	-.176	.209	1.000	.114	-.133	-.155	-.197
	Q20	-.430	-.427	.344	-.063	.471	-.400	.537	-.645	-.613	-.068	.412	-.570	-.620	.387	-.581	.671	-.328	.263	.114	1.000	-.683	-.283	-.431
	Q21	.575	.586	-.386	.129	-.550	.538	-.589	.662	.737	.150	-.445	.680	.666	-.473	.670	-.833	.484	-.363	-.133	-.683	1.000	.467	.565
	Q22	.374	.378	-.324	-.006	-.422	.475	-.370	.441	.446	.170	-.379	.508	.470	-.344	.354	-.442	.323	-.281	-.155	-.283	.467	1.000	.665
	Q23	.556	.492	-.375	.090	-.565	.585	-.467	.580	.583	.230	-.377	.575	.581	-.411	.501	-.526	.512	-.253	-.197	-.431	.565	.665	1.000
Sig. (1-tailed)	Q1		.000	.001	.018	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.037	.000	.000	.000	.000
	Q2	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.004	.000	.000	.000	.000
	Q3	.001	.000		.181	.000	.000	.000	.000	.000	.183	.000	.000	.000	.000	.009	.000	.001	.000	.001	.000	.000	.000	.000
	Q4	.018	.000	.181		.500	.066	.338	.189	.073	.000	.026	.330	.002	.179	.002	.124	.024	.227	.000	.229	.064	.472	.146
	Q5	.000	.000	.000	.500		.000	.000	.000	.000	.188	.000	.000	.000	.000	.000	.000	.000	.000	.020	.000	.000	.000	.000
	Q6	.000	.000	.000	.066	.000		.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.184	.000	.000	.000	.000
	Q7	.000	.000	.000	.338	.000	.000		.000	.000	.144	.000	.000	.000	.000	.000	.000	.000	.000	.046	.000	.000	.000	.000
	Q8	.000	.000	.000	.189	.000	.000	.000		.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.018	.000	.000	.000	.000
	Q9	.000	.000	.000	.073	.000	.000	.000	.000		.021	.000	.000	.000	.000	.000	.000	.000	.001	.148	.000	.000	.000	.000
	Q10	.001	.000	.183	.000	.188	.002	.144	.006	.021		.005	.039	.000	.076	.000	.073	.000	.015	.000	.211	.039	.023	.003
	Q11	.000	.000	.000	.026	.000	.000	.000	.000	.000	.005		.000	.000	.000	.000	.000	.002	.000	.001	.000	.000	.000	.000
	Q12	.000	.000	.000	.330	.000	.000	.000	.000	.000	.039	.000		.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000
	Q13	.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	Q14	.000	.000	.000	.179	.000	.000	.000	.000	.000	.076	.000	.000	.000		.000	.000	.000	.000	.101	.000	.000	.000	.000
	Q15	.000	.000	.009	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.003	.000	.000	.000	.000
	Q16	.000	.000	.000	.124	.000	.000	.000	.000	.000	.073	.000	.000	.000	.000	.000		.000	.000	.053	.000	.000	.000	.000
	Q17	.000	.000	.001	.024	.000	.000	.000	.000	.000	.000	.002	.000	.000	.000	.000	.000		.001	.018	.000	.000	.000	.000
	Q18	.000	.002	.000	.227	.000	.000	.000	.000	.001	.015	.000	.000	.000	.000	.000	.000	.001		.007	.001	.000	.000	.001
	Q19	.037	.004	.001	.000	.020	.184	.046	.018	.148	.000	.001	.001	.000	.101	.003	.053	.018	.007		.091	.058	.034	.010
	Q20	.000	.000	.000	.229	.000	.000	.000	.000	.000	.211	.000	.000	.000	.000	.000	.000	.000	.001	.091		.000	.000	.000
	Q21	.000	.000	.000	.064	.000	.000	.000	.000	.000	.039	.000	.000	.000	.000	.000	.000	.000	.000	.058	.000		.000	.000
	Q22	.000	.000	.000	.472	.000	.000	.000	.000	.000	.023	.000	.000	.000	.000	.000	.000	.000	.000	.034	.000	.000		.000
	Q23	.000	.000	.000	.146	.000	.000	.000	.000	.000	.003	.000	.000	.000	.000	.000	.000	.000	.001	.010	.000	.000	.000	

a. Determinant = 3.31E-007

Appendix F

Rotated –Orthogonal, Varimex

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Q20	-.818			
Q16	-.796			
Q21	.785			
Q9	.756			
Q8	.711			
Q15	.710			
Q13	.661	.409		
Q7	-.618			
Q12	.559		-.441	
Q2	.553			
Q6	.405	.714		
Q23		.700		
Q17		.651		
Q22		.632	-.424	
Q1	.470	.589		
Q3			.751	
Q11	-.418		.583	
Q14	-.411		.526	
Q5	-.460		.522	
Q18			.468	
Q4				.806
Q10				.737
Q19			.409	-.700

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Rotated- Oblimin, Oblique

Pattern Matrix[a]

	Component			
	1	2	3	4
Q20	-.934			
Q16	-.848			
Q21	.805			
Q9	.764			
Q15	.718			
Q8	.712			
Q7	-.619			
Q13	.617			
Q2	.502			
Q12	.500			
Q4		.817		
Q10		.726		
Q19		-.698	.439	
Q3			.740	
Q11			.506	
Q14			.432	
Q18			.418	
Q5				
Q23				.702
Q6				.702
Q22				.682
Q17				.661
Q1				.527

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Appendix G

Removal of Items 4, 10, and 19

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	10.292	51.459	51.459	10.292	51.459	51.459	8.785
2	1.155	5.776	57.235	1.155	5.776	57.235	5.417
3	1.109	5.546	62.781	1.109	5.546	62.781	7.149
4	.888	4.438	67.219				
5	.789	3.945	71.165				
6	.728	3.639	74.803				
7	.684	3.418	78.221				
8	.570	2.849	81.070				
9	.548	2.740	83.810				
10	.436	2.182	85.992				
11	.401	2.003	87.995				
12	.387	1.933	89.928				
13	.363	1.816	91.744				
14	.310	1.550	93.294				
15	.292	1.458	94.752				
16	.265	1.326	96.078				
17	.231	1.157	97.235				
18	.218	1.090	98.325				
19	.206	1.028	99.352				
20	.130	.648	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix[a]

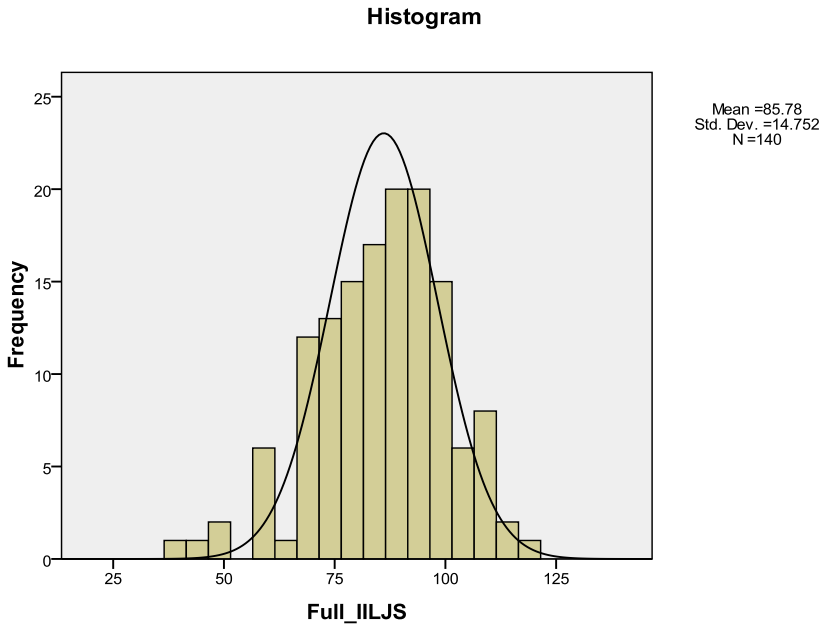
	Component		
	1	2	3
Q20	-.942		
Q16	-.819		
Q21	.762		
Q8	.723		
Q9	.717		
Q15	.694		
Q7	-.584		
Q13	.571		
Q12	.459		
Q3		.807	
Q11		.577	
Q14		.568	
Q5		.458	
Q18		.448	
Q6			.778
Q17			.749
Q23			.668
Q1			.628
Q22			.574
Q2			

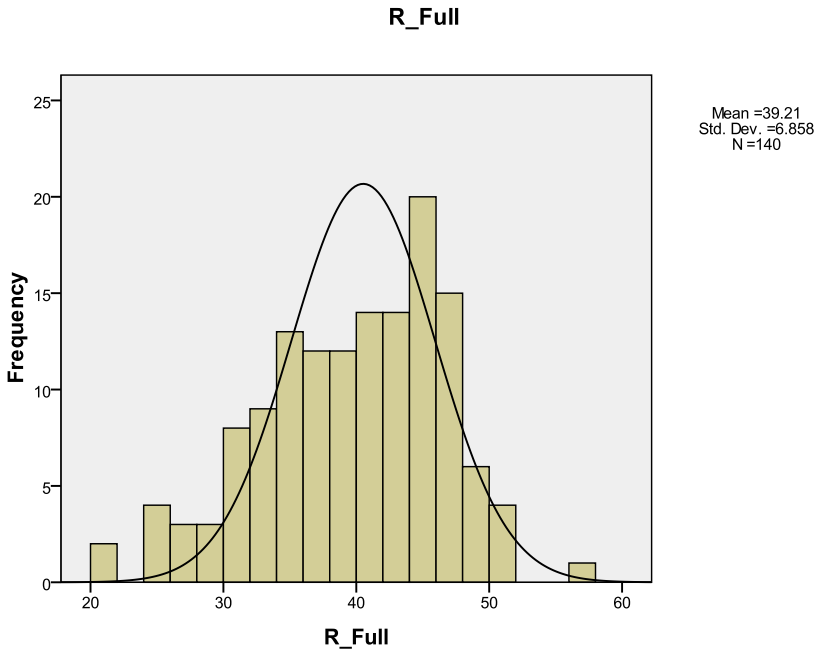
Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

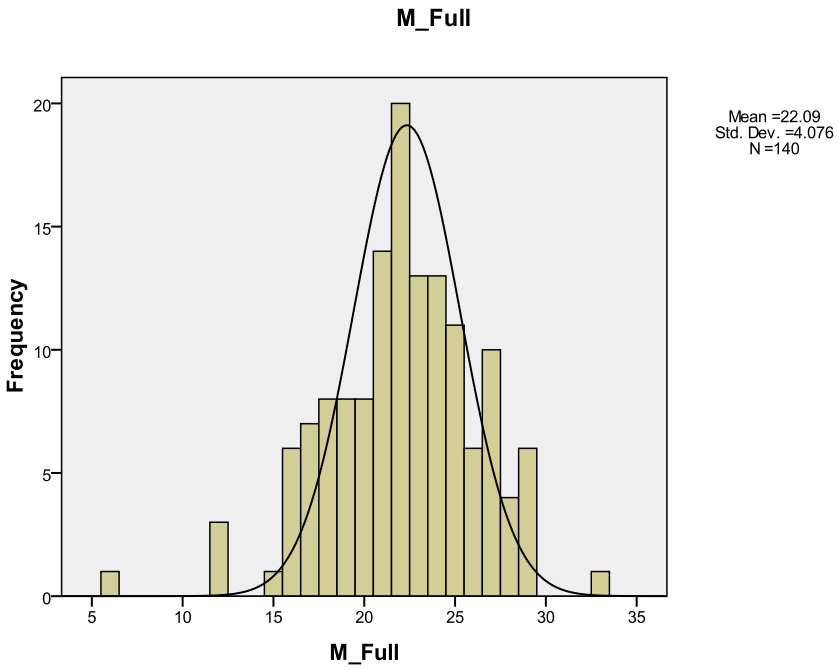
a. Rotation converged in 9 iterations.

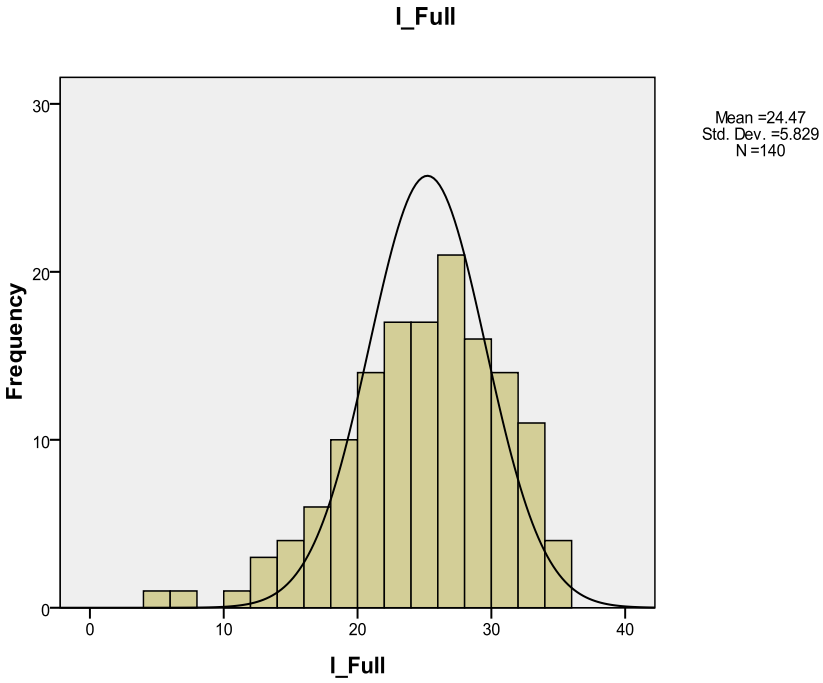
Appendix H

Histograms - Frequency of Items






M_Full
Mean =22.09
Std. Dev. =4.076
N =140
Frequency
M_Full

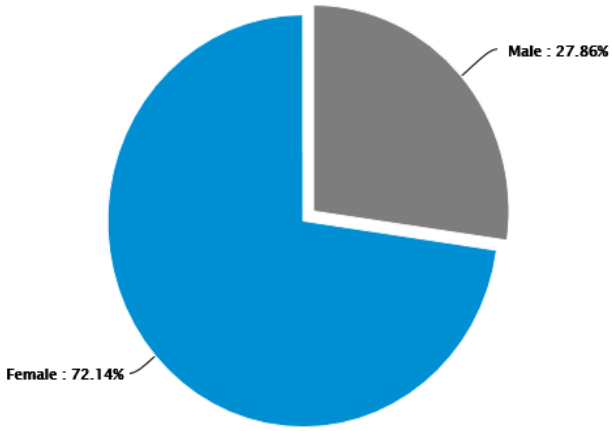

I_Full
Mean =24.47
Std. Dev. =5.829
N =140
Frequency
I_Full

Appendix I

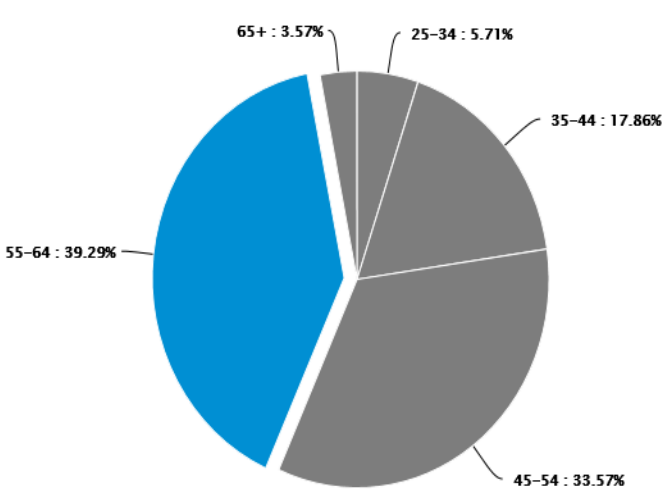
Demographics of Study Participants

The distributions are shown in pie charts and the “blue” section represents majority within each of the categories.

Gender

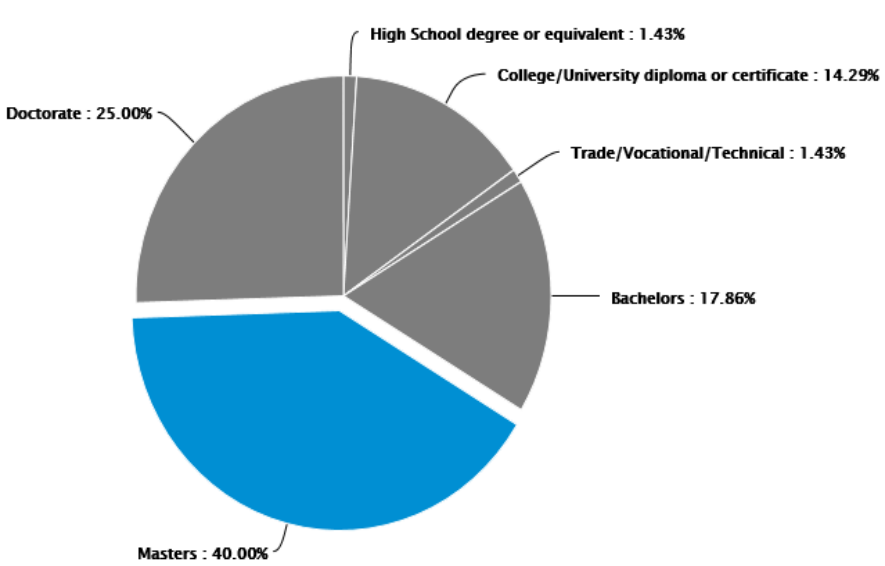


Age

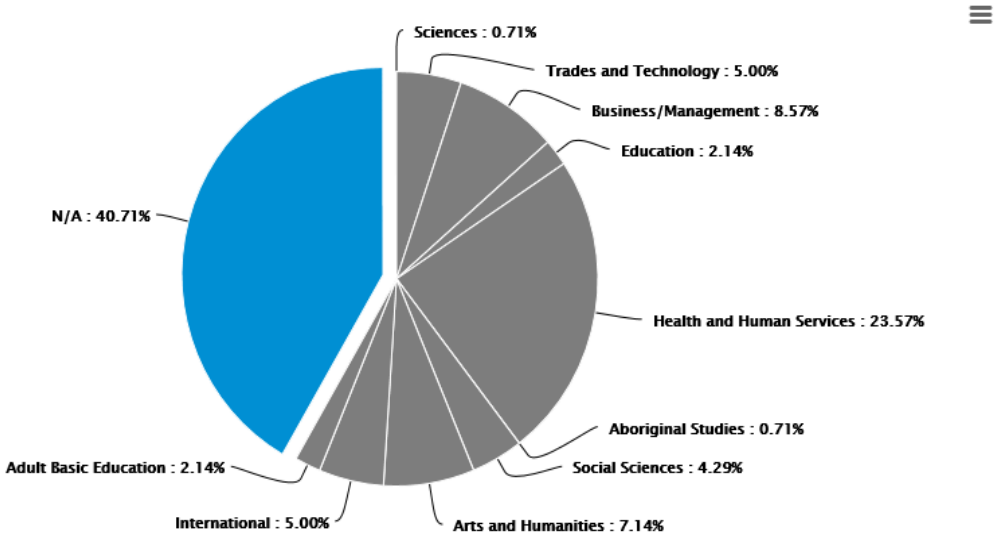


INSTITUTIONAL LEGITIMACY AND ORGANIZATIONAL OUTCOMES

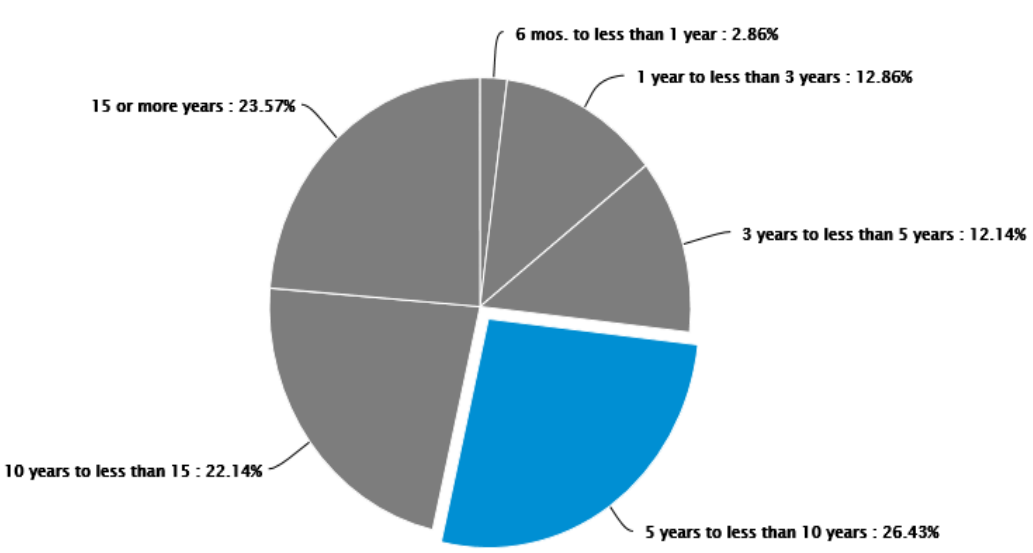
Education obtained



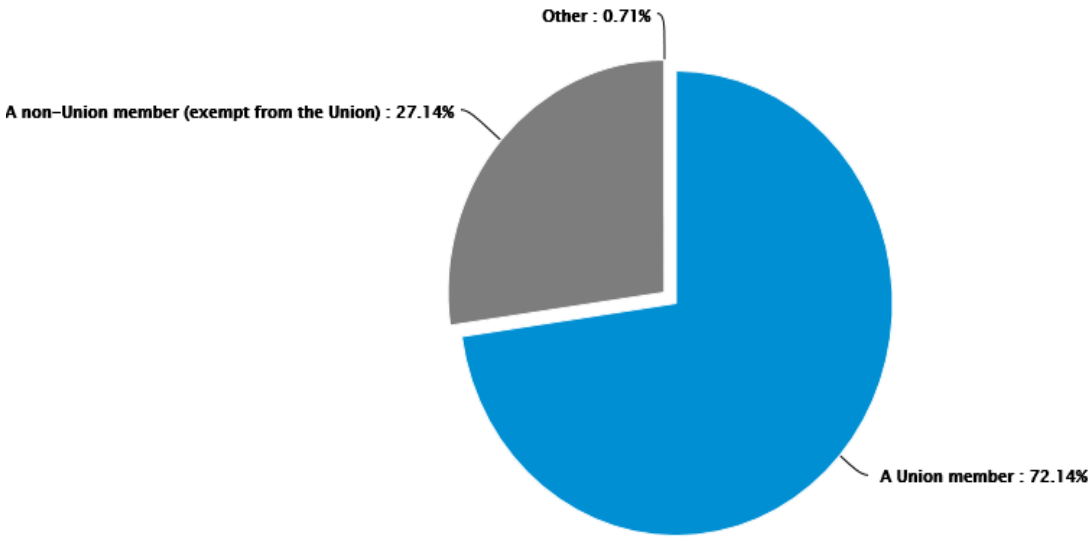
Area of Work (N/A represents Central Administration, Finance, HR, Registration, Facilities, and Information Technology)



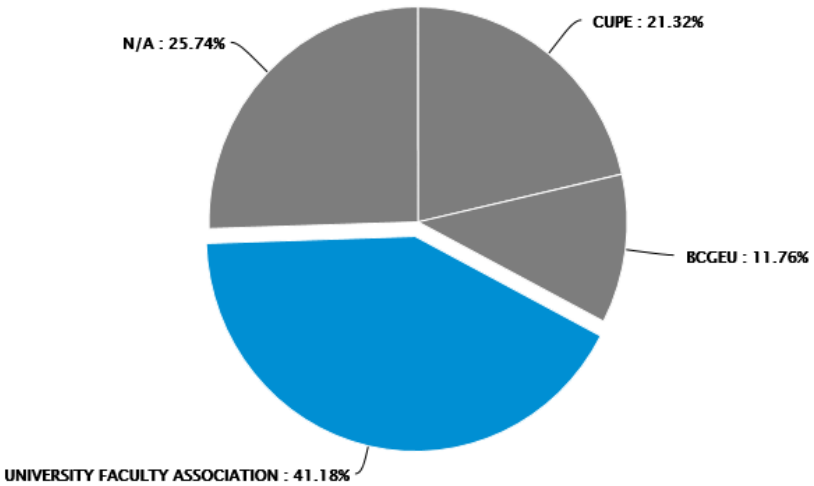
Length of Employment



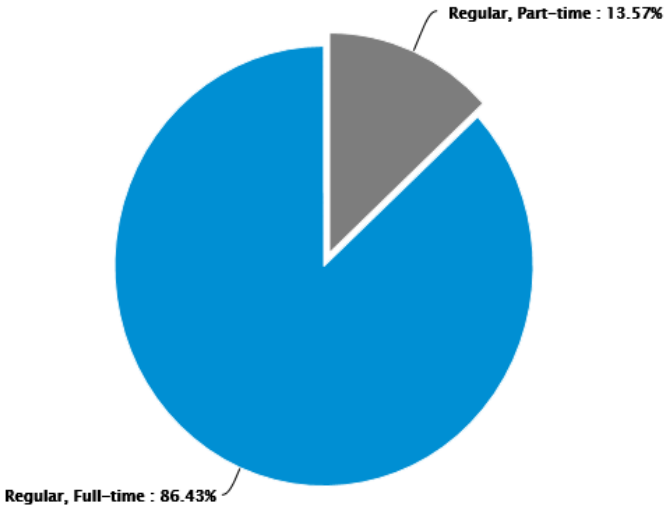
Union or exempt status



Name of union or N/A (if exempt)



Type of Regular job



Appendix J

Correlation Matrix for the Demographic Controls and Outcome Variables

Correlations

		Q34_Gender	Q35_Age	Q36_Educ	Q37_Work Area	Q38_Faculty	Q39_Length Employ	Q40_UnionorNO	Q41_Union Type	Q42_Reg type	Predicted Value for Q32Tr SAconst	Predicted Value for Q33Tr Presconst
Q34_Gender	Pearson Correlation	1	-.155*	-.157*	-.061	.048	.067	-.234**	-.252**	-.014	.059	-.018
	Sig. (1-tailed)		.033	.032	.238	.287	.217	.003	.002	.437	.244	.418
	N	140	140	140	140	140	140	140	137	140	140	140
Q35_Age	Pearson Correlation	-.155*	1	.176*	-.301**	-.275**	.314**	.018	.098	-.038	-.125	.100
	Sig. (1-tailed)	.033		.019	.000	.001	.000	.415	.127	.328	.071	.119
	N	140	140	140	140	140	140	140	137	140	140	140
Q36_Educ	Pearson Correlation	-.157*	.176*	1	-.313**	-.214**	-.026	-.003	.362**	.226**	-.085	.103
	Sig. (1-tailed)	.032	.019		.000	.006	.382	.485	.000	.004	.160	.113
	N	140	140	140	140	140	140	140	137	140	140	140
Q37_WorkArea	Pearson Correlation	-.061	-.301**	-.313**	1	.520**	-.165*	.285**	.007	.115	.117	-.134
	Sig. (1-tailed)	.238	.000	.000		.000	.026	.000	.468	.087	.084	.057
	N	140	140	140	140	140	140	140	137	140	140	140
Q38_Faculty	Pearson Correlation	.048	-.275**	-.214**	.520**	1	-.109	.332**	.181*	.129	.138	-.053
	Sig. (1-tailed)	.287	.001	.006	.000		.100	.000	.017	.065	.052	.268
	N	140	140	140	140	140	140	140	137	140	140	140
Q39_LengthEmploy	Pearson Correlation	.067	.314**	-.026	-.165*	-.109	1	-.056	.104	-.010	.029	.074
	Sig. (1-tailed)	.217	.000	.382	.026	.100		.257	.114	.455	.369	.193
	N	140	140	140	140	140	140	140	137	140	140	140
Q40_UnionorNO	Pearson Correlation	-.234**	.018	-.003	.285**	.332**	-.056	1	.670**	.242**	-.185*	-.094
	Sig. (1-tailed)	.003	.415	.485	.000	.000	.257		.000	.002	.014	.135
	N	140	140	140	140	140	140	140	137	140	140	140
Q41_UnionType	Pearson Correlation	-.252**	.098	.362**	.007	.181*	.104	.670**	1	.310**	-.164*	-.024
	Sig. (1-tailed)	.002	.127	.000	.468	.017	.114	.000		.000	.027	.390
	N	137	137	137	137	137	137	137	137	137	137	137
Q42_Reg type	Pearson Correlation	-.014	-.038	.226**	.115	.129	-.010	.242**	.310**	1	-.036	-.074
	Sig. (1-tailed)	.437	.328	.004	.087	.065	.455	.002	.000		.337	.194
	N	140	140	140	140	140	140	140	137	140	140	140
Predicted Value for Q32TrSAconst	Pearson Correlation	.059	-.125	-.085	.117	.138	.029	-.185*	-.164*	-.036	1	.127
	Sig. (1-tailed)	.244	.071	.160	.084	.052	.369	.014	.027	.337		.067
	N	140	140	140	140	140	140	140	137	140	140	140
Predicted Value for Q33TrPresconst	Pearson Correlation	-.018	.100	.103	-.134	-.053	.074	-.094	-.024	-.074	.127	1
	Sig. (1-tailed)	.418	.119	.113	.057	.268	.193	.135	.390	.194	.067	
	N	140	140	140	140	140	140	140	137	140	140	140

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

The Partial Correlations with and without the Controls (single demographic variables removed)

Gender

There is a relationship between TrIILJ and TrSAConstant after controlling for gender. The original correlation between TrIILJ and TrSA is -.146 and is significant ($p<.05$). The partial correlation when gender is controlled shows a slight increase in the correlation between TrIILJ and TrSAConstant to -.221 and is significant ($p<.005$). Thus, gender acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. There is a relationship between TrIILJ and TrPresConstant after controlling for gender. The original correlation value is -.313 and is significant ($p<.001$). The partial correlation after controlling for gender is -.448 and is significant ($p<.001$). Once again, gender acts as a suppressing variable in the relationship between TrIILJ

and TrPresConstant. Since there is a significant negative correlation that increases between TrIILJ and the outcomes (TrSAConstant and TrPresConstant) when both are controlled for gender it can be concluded that gender does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress this relationship.

It was found that there is a relationship between TrPWB and TrSAConstant after controlling for gender. The original correlation is .040 and not significant. The partial correlation value when gender is controlled is -.081 and not significant. The interesting point in this case is that the nature of the relationship between TrPWB and TrSAConstant can be said to partially depend on gender because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (gender) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. It was found that there is a relationship between TrPWB and TrPresConstant after controlling for gender. The original correlation is -.272 and is significant ($p<.001$). The partial correlation after controlling for gender is -.396 and is significant ($p<.001$). When gender is introduced as a third variable (control) it is shown to act as a supressing variable in the relationship between TrPWB and the outcome TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for gender. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for gender is -.176 and is significant ($p<.05$). Thus, gender acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for gender is -

.514 and is significant (p<.001). When introduced as a third variable, gender acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (the removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence (Effect)
Gender	TrIILJ & TrSAConstant	-.146	-.221	p<.05 p<.005	Suppressing
	TrIILJ & TrPresConstant	-.313	-.448	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.081	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.396	p<.001 p<.001(control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.176	ns p<.05 (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.514	p<.001 p<.001 (control)	Suppressing

Age

There is a relationship between TrIILJ and the two outcome variables (TrSAConstant and TrPresConstant) after controlling for age. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for age is -.231 and is significant (p<.005). Thus, age acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between the TrIILJ and TrPresConstant is -.313 and is significant (p<.001). The partial correlation after controlling for age is -.450 and is significant (p<.001). When introduced as a third variable, age acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a substantial significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant), even after controlling both for age. In essence, age does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for age. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for age is -.069 and is not significant. The interesting point in this case is that the nature of the relationship between TrPWB and TrSAConstant partially depends on age because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (age) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. The original correlation between the interaction term and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for age is -.407 and is significant ($p<.001$). When introduced as a third variable, age acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for age. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for age is -.175 and is significant ($p<.05$). Thus, age acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for age is -.527 and is significant ($p<.001$). When introduced as a third variable, age acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (the removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Age	TrIILJ & TrSAConstant	-.146	-.231	p<.05 p<.005 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.450	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.069	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.407	p<.001 p<.001 (control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.175	ns p<.05 (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.527	p<.001 p<.001 (control)	Suppressing

Education Obtained

There is a relationship between TrIILJ and the two outcome variables (TrSAConstant and TrPresConstant) after controlling for education obtained. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for education obtained is -.228 and is significant (p<.05). Thus, education obtained acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between the TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for education obtained is -.447 and is significant (p<.001). When introduced as a third variable, education obtained acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a significant negative correlation between TrIILJ and the outcomes (TrSAConstant andTrPresConstant), even after controlling both for education obtained. In essence, education obtained does not add to the apparent relationship of IILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for education obtained. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for education

obtained is -.055 and is not significant. The interesting point in this case is that the nature of the relationship between TrPWB and TrSAConstant partially depends on education obtained because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (education obtained) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. The original correlation between TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for education obtained is -.389 and is significant ($p<.001$). When introduced as a third variable, education obtained acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for education obtained. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for age is -.163 and is not significant. Thus, education obtained acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for education obtained is -.512 and is significant ($p<.001$). When introduced as a third variable, education obtained acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (the removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Education Obtained	TrIILJ & TrSAConstant	-.146	-.228	p<.05 p<.05 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.447	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.055	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.389	p<.001 p<.001 (control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.163	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.512	p<.001 p<.001 (control)	Suppressing

Area of Work

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for area of work. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for area of work is -.254 and is significant (p<.005). Thus, area of work acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between the TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for area of work is -.442 and is significant (p<.001). When introduced as a third variable, area of work acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant), even after controlling both for area of work. In essence, area of work does not add to the apparent relationship of IILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for area of work. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for area of work is -

.035 and is not significant. The interesting point here is that the nature of the relationship between TrPWB and TrSAConstant partially depends on area of work because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (area of work) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for area of work is -.412 and is significant ($p<.001$). When introduced as a third variable, area of work acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for area of work. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for area of work is -.163 and is not significant. Thus, area of work acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for area of work is -.525 and is significant ($p<.001$). When introduced as a third variable, area of work acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (the removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Area of work (i.e., Faculty, Central Administration, IT, Student Affairs, etc.)	TrIILJ & TrSAConstant	-.146	-.254	p<.05 p<.005 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.442	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.035	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.412	p<.001 p<.001 (control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.163	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.525	p<.001 p<.001 (control)	Suppressing

Faculty

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for Faculty. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for Faculty is -.243 and is significant (p<.005). Thus, Faculty acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for Faculty is -.445 and is significant (p<.001). When introduced as a third variable, Faculty acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant), even after controlling both for Faculty. In essence, Faculty does not add to the apparent relationship of IILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for area of Faculty. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for Faculty is -.050 and is not significant. The interesting point here is that the nature of the relationship between

TrPWB and TrSAConstant partially depends on Faculty because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (Faculty) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation.

The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for area of work is -.397 and is significant ($p<.001$). When introduced as a third variable, Faculty acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for Faculty. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for Faculty is -.167 and is significant ($p<.05$). Thus, Faculty acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for Faculty is -.517 and is significant ($p<.001$). When introduced as a third variable, Faculty acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (the removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Faculty	TrIILJ & TrSAConstant	-.146	-.243	p<.05 p<.005 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.445	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.050	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.397	p<.001 p<.001 (control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.167	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.517	p<.001 p<.001 (control)	Suppressing

Length of Employment

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for length of employment. The original correlation between TrIILJ and TrSA is -.146 and is significant ($p<.05$). The partial correlation after controlling for length of employment is -.229 and is significant ($p<.05$). Thus, length of employment acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between TrIILJ and TrPres is -.313 and is significant ($p<.001$). The partial correlation after controlling for length of employment is -.449 and is significant ($p<.001$). When introduced as a third variable, length of employment acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant) even after controlling both for length of employment. In essence, length of employment does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for area of length of employment. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling

for length of employment is -.056 and is not significant. The interesting point here is that the nature of the relationship between TrPWB and TrSAConstant partially depends on length of employment because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (length of employment) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation.

The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for length of employment is -.388 and is significant ($p<.001$). When introduced as a third variable, length of employment acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for length of employment. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for length of employment is -.164 and is not significant. Thus, length of employment acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for length of employment is -.513 and is significant ($p<.001$). When introduced as a third variable, length of employment acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Length of Employment	TrIILJ & TrSAConstant	-.146	-.229	p<.05 p<.05 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.449	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.056	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.388	p<.001 p<.001(control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.164	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.513	p<.001 p<.001 (control)	Suppressing

Union or exempt

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for employees being part of a union or exempt. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for union or exempt is -.215 and is significant (p<.05). Thus, union or exempt acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for union or exempt is -.443 and is significant (p<.001). When introduced as a third variable, union or exempt acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant) even after controlling both for union or exempt. In essence, union or exempt does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for union or exempt. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for union or

exempt is -.054 and is not significant. The interesting point here is that the nature of the relationship between TrPWB and TrSAConstant partially depends on union or exempt because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (union or exempt) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for union or exempt is -.389 and is significant ($p<.001$). When introduced as a third variable, union or exempt acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for union or exempt. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for union or exempt is -.153 and is not significant. Thus, union or exempt acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for union or exempt is -.508 and is significant ($p<.001$). When introduced as a third variable, union or exempt acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Union or exempt	TrIILJ & TrSAConstant	-.146	-.215	p<.05 p<.05 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.443	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.054	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.389	p<.001 p<.001(control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.153	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.508	p<.001 p<.001 (control)	Suppressing

Union Type

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for union type. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for type is -.218 and is significant (p<.05). Thus, union type acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for union type is -.441 and is significant (p<.001). When introduced as a third variable, union type acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a substantial significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant) even after controlling both for union type. In essence, union type does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for union type. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for union type is -.055 and is not significant. The interesting point here is that the nature of the relationship between

TrPWB and TrSAConstant partially depends on union type because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (union type) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation. The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for union type is -.389 and is significant ($p<.001$). When introduced as a third variable, union type acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for union type. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for union type is -.158 and is not significant. Thus, union type acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for union type is -.504 and is significant ($p<.001$). When introduced as a third variable, union type acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Union Type	TrIILJ & TrSAConstant	-.146	-.218	p<.05 p<.05 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.441	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.054	ns ns (control)	Mediating
	TrPWB & TrPresConstant	-.272	-.389	p<.001 p<.001(control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.158	ns ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.504	p<.001 p<.001 (control)	Suppressing

Regular Type (part or full time)

There is a relationship between TrIILJ and the two outcome variables TrSAConstant and TrPresConstant after controlling for regular type. The original correlation between TrIILJ and TrSA is -.146 and is significant (p<.05). The partial correlation after controlling for regular type is -.232 and is significant (p<.05). Thus, regular type acts as a suppressing variable in the relationship between TrIILJ and TrSAConstant. The original correlation between TrIILJ and TrPres is -.313 and is significant (p<.001). The partial correlation after controlling for union type is -.444 and is significant (p<.001). When introduced as a third variable, regular type acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant. There is a substantial significant negative correlation between TrIILJ and the outcomes (TrSAConstant and TrPresConstant) even after controlling both for regular type. In essence, regular type does not add to the apparent relationship of TrIILJ and the outcomes but rather acts to suppress the existing relationship.

There is a relationship between TrPWB and the two outcome variables TrSAConstant and TrPresConstant after controlling for regular type. The original correlation between TrPWB and TrSA is .040 and is not significant. The partial correlation after controlling for regular type is -

.059 and is not significant. The interesting point here is that the nature of the relationship between TrPWB and TrSAConstant partially depends on regular type because when this third variable is controlled the relationship of the main effect has an opposite correlation, i.e., from positive to negative. The control variable (regular type) is identified as accounting for part of the correlation of the relationship between the predictor and the outcome and can be said to be mediating the correlation. This means it accounts for or explains part of the correlation.

The original correlation between the TrPWB and TrPres is -.272 and is significant ($p<.001$). The partial correlation after controlling for regular type is -.384 and is significant ($p<.001$). When introduced as a third variable, regular type acts in a suppressing manner in the relationship between TrIILJ and TrPresConstant.

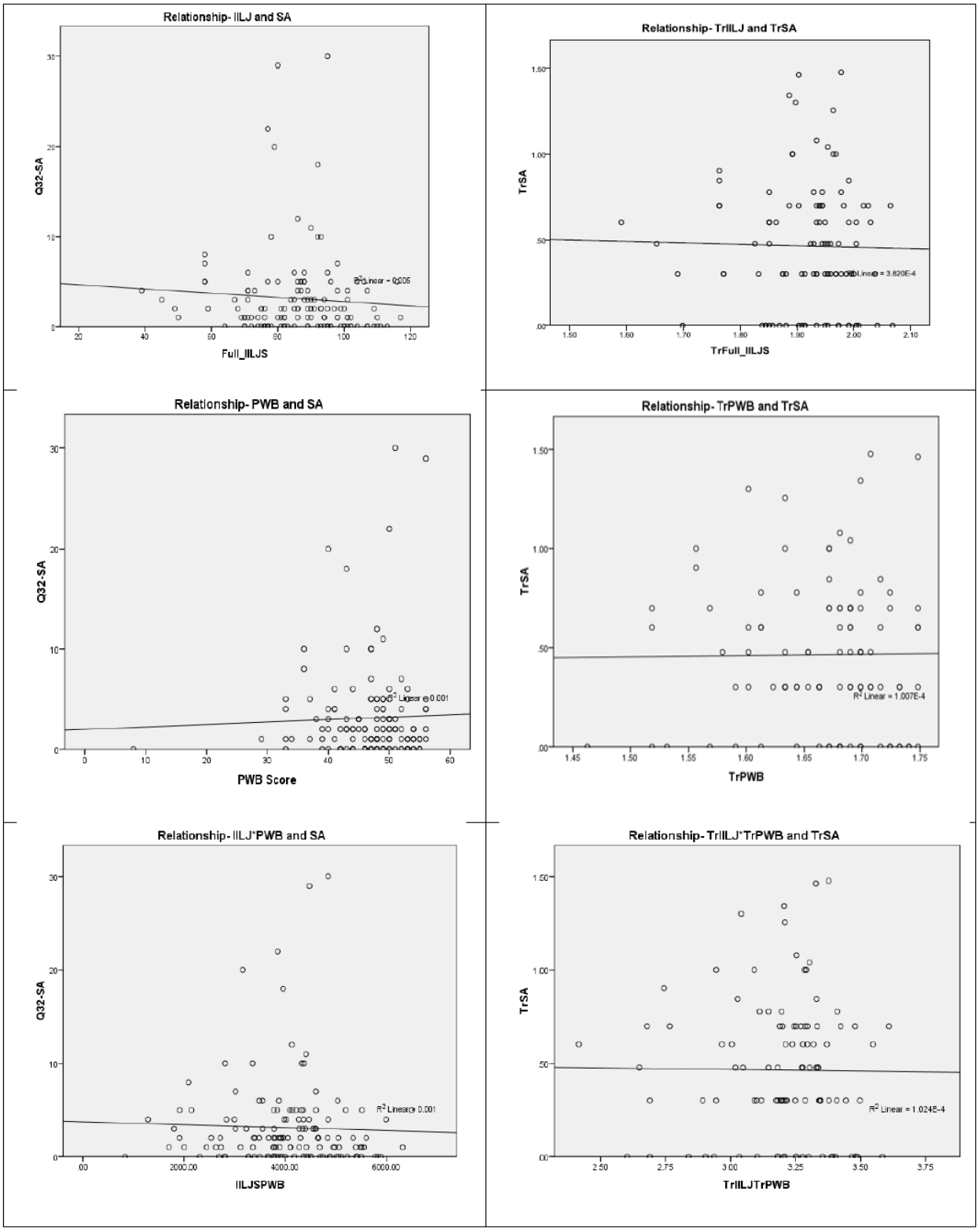
With regards to the interaction term in model 2 (TrIILJ*TrPWB), a relationship exists between the interaction term and both outcome variables (TrSAConstant and TrPresConstant) after controlling for regular type. The original correlation between the interaction term and TrSA is -.052 and is not significant. The partial correlation after controlling for regular type is -.168 and is significant ($p<.05$). Thus, regular type acts as a suppressing variable in the relationship between TrIILJ*TrPWB and TrSAConstant. The original correlation between the interaction term and TrPres is -.360 and is significant ($p<.001$). The partial correlation after controlling for regular type is -.508 and is significant ($p<.001$). When introduced as a third variable, regular type acts in a suppressing manner in the relationship between TrIILJ*TrPWB and TrPresConstant. The findings are summarized in the table below.

Control (removed variable)	Variables	Correlations			
		Original	Control	Significant	Control Influence
Regular Type	TrIILJ & TrSAConstant	-.146	-.232	p<.05 p<.05 (control)	Suppressing
	TrIILJ & TrPresConstant	-.313	-.444	p<.001 p<.001 (control)	Suppressing
	TrPWB & TrSAConstant	.040	-.059	ns ns (with control)	Mediating
	TrPWB & TrPresConstant	-.272	-.384	p<.001 p<.001 (control)	Suppressing
	TrIILJ*TrPWB & TrSAConstant	-.052	-.168	p<.05 ns (control)	Suppressing
	TrIILJ*TrPWB & TrPresConstant	-.360	-.508	p<.001 p<.001 (control)	Suppressing

In sum, partial correlation allows the statistical influence of one measured variable to be held constant while computing the correlation between the other two. In this case, the demographic variables were used as controls for each of the predictor variables and their influence on each of the outcome variables.

Appendix K

Monotonic Relationship of SA and TrSA with Predictors



Monotonic Relationship of Presenteeism and TrPresenteeism with Predictors