

## **Measuring Burnout in Employed University Students: White Paper, Phase I**

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The burnout syndrome (or “burnout”) was first described by Freudenberger in 1974, and has emerged as a key construct in the field of organizational research (Schaufeli, Leiter, & Maslach, 2009). Burnout is generally understood as a psychological condition resulting from prolonged exposure to chronic emotional and cognitive stressors in organizational settings (Maslach, 2003; Woodhead, Northrop, & Edelstein, 2016). The concept of burnout has been linked to a multitude of negative effects associated with a wide range of organizational and societal concerns. For example, burnout was found to be detrimental to job performance in the form of absenteeism and turnover intention, and is linked to adverse physiological and mental health conditions (i.e., physical exhaustion and depression; Maslach, Schaufeli, & Leiter, 2001).

Burnout is characterized and defined with three key dimensions that are specific to employment, including: overwhelming exhaustion, cynicism and detachment, and reduced sense of personal accomplishments (Maslach & Florian, 1988). Overwhelming exhaustion refers to the depletion of emotional and/or cognitive resources in response to work related stressors, and corresponds with the perception of being overextended (Maslach & Jackson, 1981). Individuals experiencing an overwhelming level of exhaustion may feel that they are unable to perform at the standard level. Cynicism and detachment refer to individual’s lack of emotional investment and cognitive engagement in occupational settings (Maslach & Jackson, 1981). This often leads to callousness, detachment, and negative responses towards one’s work. The reduced sense of accomplishments – or sense of ineffectiveness – describes the negative perceptions and evaluations towards oneself (Maslach & Jackson, 1981). The dimensions of overwhelming

exhaustion, as well as cynicism and detachment, are associated to the presence of emotional and social conflicts, as well as cognitive overload to job related events. Sense of ineffectiveness, on the other hand, is associated with the inability to overcome limited resources to meet job demands (Maslach, 2003).

Maslach and Jackson (1981) created a measure to assess individual burnout using the three dimensions, known as the Maslach Burnout Inventory (MBI). The MBI is highly reliable and has been supported by confirmatory factor analysis (e.g., Schaufeli & Van Dierendonck, 1993), and it has become the most commonly used measure of burnout since its conception. Schaufeli and Enzmann (1998) reported that as of the late 1990s, 93% of published studies about burnout used the MBI as a measure of burnout.

Adaptations of the MBI designed for populations outside of the employment setting, such as academic and student burnout, have frequently been used in the literature (e.g., Maroco & Duarte, 2012); however, the adaptations of the MBI for other populations have been criticized for being atheoretical, as many newly adapted measures started with the MBI without testing the theories in the new context using appropriate and relevant samples (Schaufeli & Van Dierendonck, 1993). For example, measures of burnout designed for student populations, such as Maslach Burnout Inventory-Student Survey, the Oldenburg Burnout Inventory - Student Survey, and the Copenhagen Burnout Inventory - Student Survey, have been adapted from existing burnout measures that were not originally developed with the intention of student applications.

University students experience stressors from multiple sources that are specific to their academic environment. For example, students reported pressure to perform well academically and to adjust to their academic environment, as well as stress stemming from financial, time, and social burdens (Burnett & Fanshawe, 1997; Renk & Smith, 2007; Wilks, 2008). Students often

face heavy course loads, and many seek part-time employment (Warren, LaPore, & Mare, 2000) to defray costs associated with attending university. That is, stress from limited income and the financial burden of paying high costs for tuitions, books, housing, and transportation often motivate students to seek employment (Robotham & Julian, 2006). As a result, working students may experience greater levels of stress as they have to balance the demands of education and employment (Yang, 2004). Therefore, employed students may experience burnout uniquely in comparison to their non-employed peers or non-student employees. Understanding the unique aspects of burnout associated with employed students are especially important, as the inability to effectively cope with multiple demands were found to be associated with adverse mental, behavioural, and emotional health outcomes (e.g., academic frustration, poor academic performance, increased smoking and alcohol consumption; Wilks, 2008; Hudd et al., 2000). A gap in the literature exists as all burnout related measures were developed specifically for employees or adapted (without theoretical grounding) for a non-employed student population.

The purpose of this project is to close this gap by developing a burnout measure that is specifically conceptualized and designed for employed student populations. This project was conducted in three phases. The first phase involved generating items based on theoretical conceptions of stressors in both employment and academic environments, and pilot testing the measure using employed undergraduate students. Exploratory factor analysis was used to assess the psychometric properties of the measure and reduce the number of items in the measure for practical utility. The second phase of this project involved confirmatory factor analysis, using a different sample of an employed student population. The third phase of this study involved additional item generation and reduction based on the results of the previous phases. This paper

focuses on Phase 1 of this project, including item generation and selection for a new burnout measure that is theoretically conceptualized specifically for employed students.

## **Method**

### **Measure Development**

The construction of the Employed Student Burnout Measure was developed in two stages: item generation and item selection. Items were generated based on extensive reviews of the literature involving both theoretical and instrumental discussion of the burnout construct, an informal qualitative survey of employed students, and the content categories outlined in the currently prevalent burnout definition (i.e. apathy, depleted of resources, exhaustion, lack of motivation, and inability to recharge). The items were measured using a 5-point scale, ranging from 1 (*Never*) to 5 (*All of the time*) referring to the frequency of the experienced symptoms. The list of items was then reviewed by the researchers. Items that were redundant, reverse coded, and negatively worded were removed from the item pool, resulting in a total of 128 items. Example items from this measure include: “I feel like work just never stops,” “I feel mentally exhausted from work,” “I feel as though I am hitting a wall at work,” and “I have no desire to excel at my job.”

### **Participants**

Data were collected from 194 employed undergraduate students from a university located in Southwestern Ontario, Canada. Twelve cases were removed for incomplete responses, and another 24 cases were removed due to quick survey response time. Little’s MCAR test was not significant ( $p = .23$ ), indicating that the remaining cases were missing completely at random. The missing values were replaced using multiple imputation. The final sample consisted of 159

employed students (125 females and 34 males), ranging from 18 to 43 years old ( $M = 20.28$ ,  $SD = 2.64$ ). The majority of the respondents were in their third year of undergraduate study ( $n = 50$ ), while 29 were in their first year, 47 in their second year, and 33 in their fourth year or above.

### **Procedure**

This study was approved by the university's Research Ethics Board. Participants provided their consent electronically by indicating their agreement to participate and then completed a demographic questionnaire followed by the 128-item measure using the online survey platform FluidSurveys. Participants were compensated with course bonus points.

### **Results**

An exploratory factor analysis (EFA) was conducted to assess the underlying factor structure of the 128-item Burnout Scale. SAS 9.4 for Windows software was used for the analysis. Based on inspection of the scree-plot, MAP test results, and parallel analysis results, a two, three, four and five-factor solution were tested. The principal axis factor was used and a direct oblimin rotation with a tau value of .2 was applied to improve the interpretability of factors. A total of 23 items were removed due to low communalities (values below 0.4).

The standardized regression coefficients in the three, four and five-factor solutions were difficult to interpret both statistically and conceptually as there were few salient items on each factor. The two-factor solution was deemed the most optimal as it revealed two interpretable latent variables with several salient items on each factor (see Table 1). Cumulatively, this two-factor solution accounted for 61% of variance. The two factors reflected subscales of burnout commonly discussed in the current literature. The items that loaded saliently on the first factor shared an underlying theme of exhaustion and were related to physical and emotional resources required to cope with the demands at work. The items that loaded saliently on second factor

shared an underlying theme of apathy and were related to a lack of motivation, desire, or attachment to work.

**Table 1.** Standardized Regression Coefficients

Item	Exhaustion	Apathy
I am emotionally exhausted from work.	.86	
I still feel tired.	.86	
I am mentally exhausted from work.	.85	
I feel mentally exhausted from work.	.85	
I feel exhausted from work.	.81	
I have difficulty sleeping.	.81	
I do not sleep well.	.77	
I never feel well rested.	.77	
I feel tired all the time.	.76	
I am mentally drained from my work.	.75	
I feel emotionally exhausted from work.	.74	
I do not wake up feeling refreshed.	.73	
I have difficulty relaxing even outside of work.	.72	
Leisure activities cannot take my mind off of work.	.72	
I feel exhausted.	.72	
Nothing helps me feel rested.	.72	
I am always tired.	.72	
I am exhausted.	.72	
I feel physically exhausted from work.	.71	
I am emotionally drained from my work.	.70	
I do not have the energy to deal with daily life.	.70	
I feel like I take my work stress home with me.	.70	
I feel overwhelmed at work.	.69	
Stress at work follows me home.	.67	
I do not have the energy to deal with work life.	.67	
I feel like work just never stops.	.67	
No matter what I do, I always feel tired.	.67	
I am worn out.	.66	
Activities that used to relax me are no longer relaxing.	.66	
I am physically exhausted from work.	.66	
I am still tired when I wake up.	.64	
I do not feel rested after the weekend.	.64	
Engaging in my favourite activities after work does not reduce my stress level.	.63	
Thinking about my job makes me tired.	.63	
I feel defeated at work.	.60	
I do not have the energy to get through the work day.	.60	
I have no desire to excel at my job.		.88

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I do not think my work is important.	.87
I do not care about my job.	.86
Work is not fulfilling to me.	.86
I lack interest in my work.	.85
I feel no accomplishment at work.	.85
I find no interest in my work.	.84
I have no interest in work-related activities.	.84
I do not care if my organization meet its goals.	.83
I am not concerned about my role at my organization.	.82
There is no point in my succeeding at work.	.81
I experience little job from my work.	.81
I feel dissatisfied with work.	.77
I am not concerned about meeting my goals at work.	.76
I am bored at work.	.76
I do not enjoy the work I am doing.	.75
I am not invested in my work.	.75
I just go through the motions at work.	.74
I think my work is pointless.	.74
I am unhappy with my current job.	.73
I feel my work is meaningless.	.73
I feel like I can achieve very little within my organization.	.72
I am not emotionally invested in my work.	.70
I feel like leaving this job.	.68
Nothing is going to make me want to go back to work.	.65
I do not look forward to going into work.	.65
I feel disconnected at work.	.65
I feel as though I am hitting a wall at work.	.64
I do not care about the quality of my work.	.64
I do not feel driven to complete my tasks at work.	.61
I have little initiative while at work.	.60

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**Notes:** Loadings under .60 are not presented.

Although the two-factor solution discriminated between dimensions of the survey items, it was necessary to shorten the survey for practical utility and for a subsequent validation study. As such, the 128-item Burnout Scale underwent two phases of trimming. In the first phase of trimming, items with factor loadings below .50 were removed. Subsequently, items were removed if they loaded on both or neither of the factors. In the second phase of trimming, the authors reviewed all remaining items for similarly-worded items and compared their respective correlation to the general burnout question. Their respective factor loadings were also compared.

The trimmed survey consisted of 28 items (see Table 2), however, 27 items were administered for scale validation in Phase 2 of the study (see Rauti, Schramer, Kartolo, & Kwantes, 2019).

**Table 2.** 28-Item Burnout Measure for Working Students

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1. I feel my work is meaningless.	15. I feel mentally exhausted from work.
2. I am unable to relax outside of work because of my work.	16. I feel emotionally exhausted from work.
3. I am not invested in my work.	17. I feel physically exhausted from work.
4. I do not know how to cope with demands at work.	18. I feel dissatisfied with work.
5. I think my work is making me sick.	19. I feel disconnected at work.
6. I am not emotionally invested in my work.	20. I do not care if my organization meets its goals.
7. I do not have the energy to complete my work.	21. I have no interest in work-related activities.
8. I feel like work just never stops.	22. I have no desire to excel at my job.
9. I just want to do nothing at work.	23. I am not concerned about my role at my organization.
10. I do not look forward to going into work.	24. Thinking about my job makes me tired.
11. I am not motivated at work.	25. No matter what I do, I always feel tired.
12. Work is not fulfilling for me.	26. Nothing helps me feel rested.
13. I feel as though I am hitting a wall at work.	27. I have difficulty sleeping.
14. I cannot concentrate.	28. I would be tired even if I loved my job.

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## Conclusion

Burnout is understood as a psychological condition caused by prolonged exposure to emotional and psychological stressors in organizational settings (Maslach, 2003). Generally, burnout is characterized with a feeling of overwhelming exhaustion, cynicism and detachment, and sense of ineffectiveness in the work domain (Maslach & Florian, 1988). While the concept of burnout is prevalent and applied mostly in organizational research (i.e., employment burnout), studies have demonstrated that the concept of burnout can also be applied to other areas – such student burnout (Maroco & Duarte, 2012). Thus far, the application of burnout in other areas



outside of the organizational domain has been criticized for being atheoretical (Schaufeli & Van Dierendonck, 1993). Burnout measures applied in other areas were often adapted from the MBI (i.e. work specific burnout measure) without appropriate developments using theoretical groundings and concepts. The purpose of this project was to close this gap, by developing a burnout measure specifically for the employed student population.

Contrary to the conceptualization of burnout that is prevalent in organizational literature, results of the first phase of this project suggested the measure of employed student burnout is a two-factor construct, including domains of exhaustion and apathy. Whereas burnout is characterized with overwhelming exhaustion, cynicism and detachment, and reduced sense of accomplishment for employees, burnout involves the dimensions of exhaustion and apathy for employed students. While many items in the new burnout measure s are like those found in the MBI, results of this study suggest only items related to exhaustion and apathy are relevant in employed students. That is, results confirmed that employed student burnout is a unique experience, and should be assessed with measures that are designed specifically for the employed student population.

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