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Development and Refinement of a Need for Resource Recovery Measure

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Abstract

A new measure of need for resource recovery from work-related demands is developed and refined in two separate studies with college students. Study 1 results ($N = 154$) highlighted a two-dimensional structure to the NFRR measure reflecting Need for Detachment and Attentional/Cognitive Resource Drain. Data from Study 2 ($N = 311$) confirmed this structure and demonstrated relatedness (but nonredundancy) between NFRR and several indicators of stress and fatigue. Designed from the theory that supports current recovery research, the present NFRR measure is useful tool for researchers and interventionists who need to assess personal recovery needs. Such a measure has important applications as we continue to seek an understanding how individuals handle occupational stress and manage personal recovery.

Reaching the state at which we need to take a break from work signals a critical juncture. If we recognize this need, then we detach ourselves and plan to fight the fight another day, once refreshed. If we fail to initiate recovery we risk beginning a negative spiral of consequences as the effects of stressor exposures accumulate. In this way, need for recovery is an important, but often ignored component of the occupational stress process for all people. This is especially the case when research or an intervention is focused on studying or improving a person's abilities to recover. The lack of attention paid to need for recovery is due in large part to the absence of an adequate measure. This in turn has limited our understanding of differences in recovery processes among individuals.

Need for recovery plays an important role in the process that links occupational stressors to psychological, physiological, and behavioral strains. Unfortunately, this role is not made evident in the existing literature on occupational stress and recovery. This need for recovery is implicit in the growing body of literature regarding recovery from work stress and use of leisure time, but at best its measurement has been deficient, if not absent altogether. If need for recovery has been included it is typically operationalized as energy-related fatigue. This is a deficient approach that needs to be addressed, especially in light of the developing theoretical linkage between stressors, need for resource recovery, and strain as outlined by Cunningham (2008a).

A more comprehensive measure of a person's need for recovery of spent psychosocial and physical resources is needed to facilitate the testing of the expanded stressor—strain model presented by Cunningham (2008). This revised stress process model incorporates Conservation of Resources (Hobfoll, 1989; 2002) and Effort-Recovery theories (Meijman & Mulder, 1998) and provides a framework for continued research into the role that need for resource recovery plays in the stress process. The present two-part study reflects the development and preliminary

psychometric analysis of a new and more comprehensive work-related measure of need for resource recovery.

A Resource Perspective on Need for Recovery

Attempts to manage work demands or stressors require us to use a variety of personal and social resources that we have accumulated in our day to day cycles of activity and recovery.

These same resources are also needed for a person to sustain energy and control over emotions and attention when under pressure, such as when facing work-related demands. The depletion of these resources creates a deficit from which individuals need to recover. Otherwise, this deficit may impair a person's ability to engage in these and other basic self-management functions (Cunningham, 2008b). This is the general developmental cycle for a person's need for resource recovery.

The developing research literature on recovery processes strongly emphasizes this resource depletion and renewal process, pulling most heavily from two complementary theories. The first, Conservation of Resources theory (Hobfoll, 1989; 2001; 2002), posits that a person uses up a wide variety of personal resources (e.g., objects, personal characteristics, conditions, and energies) when coping with stressors. The motivation to use these resources comes from an intense desire to avoid losing any more resources. In a related fashion, when stressors are absent, the person is motivated to (re)build his/her stores of resources for future use.

The second recovery-relevant theory is the Effort-Recovery model (Meijman & Mulder, 1998). Similar to Conservation of Resources theory, this model suggests that responses to stress exact costs on a person and these costs are physical and psychological. The costs can be recouped if a person is able to recover, but they are compounded (with interest it seems) when recovery is absent. Whereas Conservation of Resources theory suggests recovery is a desirably

imbalanced state of having more resources than demands to meet, the Effort-Recovery model emphasizes a homeostatic state as being the ultimate recovery. In this state no demands are being placed on the person. Although this model has been applied widely in recent recovery research (e.g., Rook & Zijlstra, 2006; Taris et al., 2006) it is limited in that it does not directly account for individual differences in recovery needs.

This individual differences perspective is inherent in the COR theory and critically important to our ability to understand a person's response to and recovery from exposure to stressors. For this reason, the relevance of a need for resource recovery construct becomes apparent. Such a construct represents a condition or state that people can recognize as a sign that one has reached his/her personal recovery threshold (i.e., time to take a break from work and start recovering). If measured, a person's need for resource recovery could serve as a useful metric for evaluating effective recovery strategies.

Although COR and Effort-Recovery theories are acknowledged as complementary and central to our understanding of recovery processes (e.g., Sonnentag & Natter, 2004), recovery-relevant measures linked to these theories have not yet been developed and/or widely applied. In the present study I broadened the current fatigue-dominated approach to need for recovery measurement to more fully incorporate work-related psychosocial resources outlined in COR theory. The revised construct is referred to as need for resource recovery and the measure developed in this study is designed to more comprehensively address a person's recovery needs than existing measures of fatigue.

The Present Objectives

The present manuscript summarizes the development and refinement of a measure for this new construct. The purpose of these studies was to establish a set of items that reflected the

broader construct of need for resource recovery more comprehensively than existing measures of fatigue. In addition, and mainly in Study 2, the emphasis was on initiating the process of developing a nomological network to better understand the role the need for resource recovery construct may play.

Study 1

The purpose in the pilot study was to initially test a set of items developed to reflect a more completely developed construct of need for resource recovery. These items were also tested along with items adapted to reflect an individual's general sense of being stressed. The first goal in this preliminary study was to identify the rough dimensional structure underlying the need for resource recovery items. The second objective was to demonstrate convergent validity, but not complete redundancy, between scores on the need for resource recovery measure and scores on the indications of general stress measure. Doing so would support the relatedness of these constructs of stress and need for resource recovery, but also suggest that the need for resource recovery construct is sufficiently distinct from stress as it is commonly conceived and measured in research.

Method

Participants

Participants were students enrolled in multiple introduction to psychology courses at a mid-sized university in the midwestern United States ($N = 159$). In return for participation students were given a chance to earn a small amount of course extra credit as well as an entry into a raffle for one of three \$25 gift certificates to an online retailer.

Procedure

Participants were contacted during classes and told of the general purpose of the pilot test. All participants were provided with a detailed informed consent letter describing their role in the study. Upon signing this form these participants received a survey packet, which included the new need for resource recovery measure and several other general stress measures.

Measures

Need for resource recovery. Following the main tenets of Conservation of Resources theory (Hobfoll, 1989; 1998; 2002), I developed eight items to address resource depletion needs beyond energy and fatigue. To more fully cover the spectrum of resource depletion, I added these new items to an existing set of 11 items that I further adapted from Jansen, Kant, & van den Brandt's (2002) need for recovery scale (originally used in a Dutch population and originally addressing fatigue and energy-related recovery needs; also Jansen, Kant, van Amelsvoort, Nijhuis, & van den Brandt, 2003). To improve the sensitivity and reliability of this scale the response format was changed from its original dichotomous "Yes/No" format to a five-point rating scale of perceived accuracy (Not at all accurate to Completely accurate) of each of the 19 descriptive statements (Weng, 2004).

Given the overarching theory of Conservation of Resources, I initially expected this measure to conform to a unidimensional factor structure. However, given differences in general types of resources (Hobfoll, 1998), it was also conceivable that a multi-dimensional structure would emerge. For this reason, a primary purpose of this initial study was to subject these items to an exploratory factor analysis (EFA).

General work stress. Thirteen items from Cohen, Kamarck, and Mermelstein (1983) were adapted to better fit a student sample (i.e., wording changed to reflect undergraduate student coursework-related experiences). Responses were made on a five-point scale of frequency

ranging from Never to Very often, such that higher scores reflected a greater perceived general sense of stress. In their original form these 11 items were part of a 14-item scale that achieved adequate internal consistency ($\alpha > .82$ across multiple samples).

Results and Discussion

Results of an EFA using the analysis software Mplus version 4.2 (Muthén & Muthén, 1998-2006) highlighted a two-dimensional structure for both the NFRR and general stress measures. These structures were identified after several iterations of item removal because of high cross-loadings over multiple factors or because of an item's failure to load with conceptually similar items.

For the NFRR measure, over several EFA iterations, 12 of the original 19 items were removed because of a failure to load strongly with the other items. This left seven items split across two factors, as summarized in Table 1. The fit statistics for this two-factor solution were adequate, $\chi^2(8) = 5.45$, $p > .05$, RMSEA = .00, RMSR = .02, and no negative residual variances were observed. The first factor (items 7, 9, and 10) reflects Attentional/Cognitive Resource Drain and the second factor (items 12, 13, 14, and 15) a more generalized Need for Detachment.

 Insert Table 1 about here.

A similar process was undertaken with the adapted general stress measure; its resulting two-factor structure is summarized in Table 2. The EFA fit statistics for this solution were also adequate, $\chi^2(8) = 11.99$, $p > .05$, RMSEA = .06, RMSR = .03, and no negative residual variances were observed. The resulting two-factor solution here reflected Experienced Stress (items 1, 2, 3, and 10) and Lack of Control (items 5, 9, and 12).

Insert Table 2 about here.

Descriptive statistics for these dimensional scores are reported in Table 3. As indicated along the diagonal, the internal consistency reliability estimates (Cronbach's α) can be considered adequate according to traditional cutoffs for all four subscales.

Insert Table 3 about here.

Correlations between the subdimension scores of these two measures (Need for Detachment and Attentional/Cognitive Resource Drain by Experienced Stress and Lack of Control) were moderate, but not indicative of complete redundancy (ranging from $r = .24$ to $.52$). Thus, these results supported the continued refinement and testing of the need for resource recovery and stress measure as part of a larger occupational stress model.

Study 2

The next step in the need for resource recovery measure development process was to confirm the factor structures identified in Study 1 for the need for resource recovery and general stress measures. A second objective was to further establish the validity and utility of the need for resource recovery construct. Towards this end, a focused measure of fatigue and the specific stressor of quantitative workload were also included. Gender and neuroticism were also included as covariates in keeping with current thinking regarding the influence of these characteristics on perceptions of stress. As in Study 1, the expectation here was that need for resource recovery

would be related, although not fully redundant to the multiple stress and fatigue variables, after controlling for the influence of gender and neuroticism.

Method

Participants and Procedure

Participants were undergraduate students from seven separate classes (six at a large university in the midwestern United States and one at a medium-sized university in the southeastern United States); no respondents in Study 2 participated in Study 1. Of the initial 407 students who indicated a willingness to participate after being told of the study, 311 completed the survey (response rate of 76%). Of these 311 participants, 35.7% were Male. The average age was about 21 years. Most participants were upper-year undergraduates as the sampling strategy had targeted (1.9% Freshman, 12.9% Sophomore, 31.5% Junior, and 53.7% Senior). Surveys were administered via the internet and data for this study were collected along with responses to measures of other constructs not relevant to the present discussion. Participation was voluntary, though completion of the survey did earn participants an entry into a drawing for one of several \$25 gift certificates to a popular internet-based retailer.

Measures

Need for resource recovery. The revised (from Study 1) seven-item version of the NFRR scale was administered, assessing participants' Attentional/Cognitive Resource Drain and Need for Detachment. In the present study the internal consistencies (α) for these two subscales were .72 and .87, respectively.

General stress. The revised (from Study 1) seven-item measure of general stress was used to evaluate a person's general level of Experienced Stress and Lack of Control. In this study the internal consistencies (α) for the two subscales were .76 and .74, respectively.

Fatigue. A measure of fatigue was included as a commonly used separate indicator of need for recovery. Participants responded to the 10-item Fatigue Assessment Scale (FAS; Michielson, De Vries, Van Heck, Van de Vijver, & Sijtsma, 2004). The items in this measure were culled from four existing, valid measures of fatigue and reduced to this core set of 10 items following an evaluation of dimensionality and redundancy among these items. Responses to each descriptive item were made on a five-point scale of perceived accuracy such that higher scores indicated a higher level of perceived fatigue. In the present study the internal consistency (α) of this scale was .85.

Quantitative workload. The five-item Quantitative Workload Inventory (Spector & Jex, 1998) was adapted for the student sample (e.g., item content shifted to focus on coursework and the college environment) and used to measure the perceived amount of work and the speed with which it must be completed. Responses were on a five-point frequency scale (Never to Very Often) and higher scores will reflect a higher prevalence of quantitative workload. In the present study the internal consistency of this scale (α) was .80.

Demographics and personality. For descriptive purposes, single items were used to gather information regarding participants' age and gender. Participants' self-reported neuroticism was evaluated with 10 items from the 50-item mini-marker measure of five-factor personality model traits (International Personality Item Pool, 2006). Responses to these items were made on a five-point scale of agreement and higher scores on the dimensions reflect a stronger self-association with that particular personality trait (also often viewed as negative affectivity). In the present study, the internal consistency (α) for this scale was .88.

For consistency with previous research and to help allay concerns about the influence of underlying personal characteristics on need for recovery or stress perceptions, gender and

neuroticism were included in the analyses as covariates. These variables have been shown to covary with a need for recovery (e.g., Jansen et al., 2002; Sonnentag & Zijlstra, 2006).

Participant gender may be a particularly salient difference factor given findings that self-regulation strategies may differ between males and females (i.e., women may stop tasks earlier than males to avoid failure, e.g., Murtagh & Todd, 2004; Nolen-Hoeksema & Corte, 2004).

Neuroticism may also represent a general tendency to experience and report distress and negative mood (i.e., akin to the potential influence of negative affectivity; e.g., Watson, Clark, & Tellegen, 1988). Such a personality characteristic can be expected to influence perceptions of need for recovery.

Results and Discussion

Using the factor structures identified in Study 1, CFA analyses were performed using Mplus (Muthén & Muthén, 1998-2006) for the need for resource recovery and general stress measures. Adequate fits were obtained for the specified models. For the need for resource recovery measure, the specified two-factor model fit well, $\chi^2(13) = 15.98, p > .05, CFI = 1.00, TLI = 1.00, RMSEA = .03, SRMR = .02$. An acceptable fit was also observed for the specified two-factor general stress model, $\chi^2(13) = 28.19, p < .05, CFI = .97, TLI = .96, RMSEA = .06, SRMR = .05$. Descriptive statistics for these and the fatigue and quantitative workload variables are summarized in Table 4.

 Insert Table 4 about here

Correlations between all variable scores demonstrated relatedness, but again non-redundancy among the six different conceptually related variables (r between the two need for

resource recovery dimensions and other stressors and fatigue variables ranging between .19 and .55). Interestingly, gender demonstrated no relationship with either dimension of need for resource recovery, though it was significantly correlated with Experienced Stress and Quantitative Workload. Neuroticism was predictably correlated significantly with all study variables, though its relationship with the two subdimensions of need for resource recovery was less than the relationship observed between neuroticism and Experienced Stress and Fatigue.

Multiple regression analyses predicting the two need for resource recovery dimensions with the stressor and fatigue scores, after controlling for gender and neuroticism showed that as a set these predictors accounted for only 29% of the variance in Attentional/Cognitive Resource Drain and 35% of the variance in Need for Detachment. Full results of these analyses are summarized in Table 5. Taken together these results lend encouraging support to the proposed distinctiveness of the need for resource recovery construct and the utility of the newly developed need for resource recovery measure as a complementary tool for use when assessing a person's need for recovery of spent resources.

Insert Table 5 about here

General Discussion

Based on current recovery-relevant theories associated with resource maintenance, the two studies presented here describe the initial development and refinement of a measure of need for resource recovery. Though preliminary, the present results suggest that this need for resource recovery measure taps into elements of the recovery needs criterion space that are not assessed

by existing measures of stress and fatigue. This support combined with Cunningham's (2008a) theoretical justification for the need for resource recovery suggests that this construct may represent an important variable for inclusion into future research occupational stress and recovery research.

Limitations

The greatest limitation to the present studies is likely to be the perceived lack of generalizability of these findings beyond a college student population. For the present measure development and refinement purposes this is not viewed as a severe limitation, especially given the universality of the concept of resource drain and recovery needs as spelled out in existing recovery research and COR theory (Hobfoll, 1998, 2002). Certainly, a logical next step is the adaptation of this measure for a non-student population and initial testing within this population. An example of what such an adapted measure might look like for a working adult population is offered in Table 6. An expanded version of this measure is currently undergoing its initial evaluation within a sample of working adults.

Insert Table 6 about here

A second limitation arises from the measure revision processes undertaken for the improvement of the need for resource recovery and general stress measures. Although the two factor solutions for each measure held up acceptably across two separate samples, the internal consistencies of these subscales were lower than would be desired. A logical next step is to develop additional items to better measure each of these four variables. Applying the Spearman-Brown prophecy formula it becomes quickly evident that only a few additional good items are

needed for the need for resource recovery and general stress measures to improve the internal consistency of each measure's two subscales. This is recommended as an important next step for further development of these measures. See Table 6 for examples of recommended items that conceptually fit within the two factors of the need for resource recovery measure.

Implications

The main implication from the present studies is that a brief measure of need for resource recovery appears to tap into recovery related needs in a partially unique manner from existing measures of stress and fatigue. From this initial measure development process, a brief need for resource recovery and general stress scale for students have been generated and it is expected that both can be easily adapted for use with a non-student population (as illustrated in Table 6).

The utility of a resource-based measure of need for resource recovery is high, as researchers and practitioners continue to search for an understanding of individuals' abilities to recognize personal recovery needs and take actions to correct those needs via successful recovery. The present need for resource recovery measure is offered as a tool for further development and refinement, but most importantly further incorporation into studies of occupational stress and recovery processes.

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Table 1. Items and EFA Factor Loadings for Final Need for Resource Recovery Measure (from Study 1)

| <i>Item</i> | <i>1</i> | <i>2</i> |
|--|------------|------------|
| 7. I have been working so hard today that I am losing my ability to concentrate on what I am doing. | .62 | .28 |
| 9. I have been so busy with schoolwork today that I am beginning to feel I am losing control over all the work I have to do. | .94 | .22 |
| 10. If my schoolwork were finished for today, I would still have trouble concentrating on other things. | .46 | .39 |
| 12. It will be difficult for me to show interest in other people when I finish working on schoolwork today. | .42 | .55 |
| 13. When I stop my schoolwork for today I will need more than an hour to begin feeling recovered. | .28 | .79 |
| 14. When I stop my schoolwork for today, I hope other people will leave me alone for a little while. | .17 | .70 |
| 15. After working on my schoolwork today I will be too tired to start on other activities. | .42 | .58 |

Note. $N = 154$; Loadings in bold are the final accepted solution of an EFA using a maximum likelihood estimator and Varimax rotation. Because of cross-loadings and lack of conceptual relatedness, 12 items were removed through an iterative EFA process to arrive at this core set of seven items. Factor 1 = Attentional/Cognitive Resource Drain and Factor 2 = Need for Detachment. Item numbers reflect the original scale. All responses were made on a five-point scale of perceived accuracy from 1 = Not at all, 2 = Somewhat, 3 = Moderately, 4 = Mostly, 5 = Completely.

Table 2. Items and EFA Factor Loadings for Final General Stress Measure.

| <i>Item</i> | <i>1</i> | <i>2</i> |
|--|------------|------------|
| 1. Been upset because of something that happened unexpectedly with your coursework? | .66 | .12 |
| 2. Felt that you were unable to control the school-related demands in your life? | .59 | .36 |
| 3. Felt nervous and stressed about your | .76 | .14 |
| 10. Been angered because of things that happened in classes that were beyond your control? | .51 | -.07 |
| 5. Felt confident about your ability to handle your coursework challenges? (Reversed) | .30 | .49 |
| 9. Felt that you were on top of your coursework? (Reversed) | .15 | .79 |
| 12. Been able to control the way you spend your time on coursework? (Reversed) | -.09 | .69 |

Note. $N = 154$; Loadings in bold are the final accepted solution of an EFA using a maximum likelihood estimator and Varimax rotation. Because of cross-loadings and lack of conceptual relatedness, seven items were removed through an iterative EFA process to arrive at this core set of seven items. Factor 1 = Experienced Stress and Factor 2 = Lack of Control. Item numbers reflect the original scale. All responses were made on a five-point scale of frequency from 1 = Never to 5 = Very often.

Table 3. Descriptive Statistics for Study 1 Variables

| <i>Variable</i> | <i>M</i> | <i>SD</i> | 1. | 2. | 3. | 4. |
|---|----------|-----------|--------|--------|--------|-----|
| 1. Attentional/Cognitive Resource Drain | 6.09 | 3.06 | .76 | | | |
| 2. Need for Detachment | 8.56 | 4.05 | .62 ** | .82 | | |
| 3. Experienced Stress | 8.37 | 2.83 | .52 ** | .47 ** | .72 | |
| 4. Lack of Control | 4.65 | 2.16 | .38 ** | .24 ** | .28 ** | .70 |

Note. *N* ranges from 154-158; ** $p < .01$; internal consistency estimates are along the diagonal.

Table 4. Descriptive Statistics for Study 2 Variables

| Variable | M | SD | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | |
|---|-------|------|------------|-----|-----|-----|----|-----|-----|-----|-----|
| 1. Female | 0.64 | 0.48 | <i>n/a</i> | | | | | | | | |
| 2. Neuroticism | 26.9 | 8.01 | .16 | ** | .88 | | | | | | |
| 3. Attentional/Cognitive Resource Drain | 6.47 | 3.00 | .06 | .32 | ** | .72 | | | | | |
| 4. Need for Detachment | 9.18 | 4.38 | -.01 | .33 | ** | .69 | ** | .87 | | | |
| 5. Experienced Stress | 8.76 | 3.16 | .20 | .45 | ** | .42 | ** | .39 | ** | .76 | |
| 6. Lack of Control | 4.82 | 2.11 | .00 | .25 | ** | .23 | ** | .19 | ** | .21 | ** |
| 7. Quantitative Workload | 11.82 | 3.55 | .25 | .32 | ** | .37 | ** | .33 | ** | .55 | ** |
| 8. Fatigue | 26.74 | 8.27 | .08 | .47 | ** | .48 | ** | .55 | ** | .45 | ** |
| | | | | | | | | .38 | ** | .34 | ** |
| | | | | | | | | | .80 | | |
| | | | | | | | | | | .38 | ** |
| | | | | | | | | | | | .85 |

Note. $N = 311$, ** $p < .01$; internal consistency estimates are along the diagonal. #1. was coded 0 = Male, 1 = Female.

Table 5. Multiple Regression Analyses Results Regressing Need for Resource Recovery Dimensions onto Personal Characteristic, Stress, and Fatigue Predictors

| <i>Predictors</i> | Attentional/Cognitive Resource Drain | | Need for Detachment | |
|-------------------------|---|----------|------------------------|----------|
| | β | β | β | β |
| | Step 1 | Step 2 | Step 1 | Step 2 |
| Female | 0.01 | -0.04 | -0.07 | -0.11 * |
| Neuroticism | 0.32 ** | 0.04 | 0.34 ** | 0.04 |
| Experienced Stress | | 0.17 ** | | 0.12 * |
| Lack of Control | | 0.05 | | -0.03 |
| Quantitative Workload | | 0.16 ** | | 0.12 * |
| Fatigue | | 0.32 ** | | 0.46 ** |
| Adjusted R ² | 0.10 | 0.29 | 0.10 | 0.35 |
| <i>F</i> | 17.81 ** | 22.14 ** | 18.97 ** | 27.08 ** |

Note. $N = 311$, * $p < .01$, ** $p < .05$. Female coded 0 = Male, 1 = Female.

Table 6. Proposed Need for Resource Recovery Items Adapted for Non-College Population.

| <i>Items</i> |
|---|
| 1. I have been working so hard today that I am losing my ability to concentrate on what I am doing. |
| 2. I have been so busy working today that I am beginning to feel I am losing control over all the work I have to do. |
| 3. If my work were finished for today, I would still have trouble concentrating on other things. |
| 4. I have worked so long and hard today that I do not have much attention left to give to my job tasks.* |
| 5. My work has taken so much effort today that I am having difficulty keeping my thoughts straight.* |
| 6. Despite my work efforts so far today, I am thinking as clearly as I was when I started working today. (R)* |
| 7. It will be difficult for me to show interest in other people when I finish working today. |
| 8. When I stop my work for today I will need more than an hour to begin feeling recovered. |
| 9. When I stop my work for today, I hope other people will leave me alone for a little while. |
| 10. After working today I will be too tired to start on other activities. |
| 11. I need to step away from my work very soon because a break would help me function better.* |
| 12. When work is finished today I will need some time by myself to start recovering and restoring myself before starting something else.* |

Note. These items have not been tested to the same degree as the student-based items presented in this manuscript. They are offered as an illustration of how the items from the present study could be easily adapted for a working adult population. The initial validation of this set of items is currently underway. Items 1-6 reflect Attentional/Cognitive Resource Drain, items 7 - 12 a Need for Detachment. Most items are identical to those tested in the present two studies with the minor modification of "schoolwork" becoming "work". Items followed by an "*" are new items that are currently being evaluated. They are included to illustrate what is believed to be a more comprehensive and internally consistent measure of need for resource recovery within a working adult population.