

Stoeber, J., Townley, J., & Davis, C. R. (2013). *Comparing two work-engagement scales: Relationships with job satisfaction, organizational commitment, and workaholism* (Research report, 7 April 2013). School of Psychology, University of Kent.

Comparing Two Work Engagement Scales:
Relationships with Job Satisfaction, Organizational Commitment,
and Workaholism

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— Research Report (7 April 2013) —

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Abstract

Although research on work engagement has made great progress over the past 10 years, how best to measure work engagement is still an open question. The aim of the present study was to compare two multidimensional scales measuring work engagement: the popular and widely used Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) capturing vigor, dedication and absorption and the newly developed ISA Engagement Scale (ISAES; Soane, Truss, Alfes, Shantz, Rees, & Gatenby, 2012) capturing intellectual, affective, and social engagement. When examining the intercorrelations of the scales' total and subscale scores and their relationships with job satisfaction, organizational commitment, and workaholism in a sample of 130 employees, results showed that—even though UWES and ISAES total and subscale scores showed considerable overlap—they captured unique variance in the outcome variables, indicating that the two scales tap different aspects of engagement. Based on the present and previous findings (Soane et al., 2012), we recommend to use both scales when measuring work engagement to capture all aspects of the construct and gain a better understanding of how different aspects of work engagement contribute to outcomes that are of key interest to organizational and occupational psychology.

Keywords: employee engagement; job involvement; occupational health; work addiction; human resource management.

Introduction

Work engagement is a state of mind in which employees consider their work to be personally meaningful, feel positive towards their work, and are involved in, committed to, enthusiastic and passionate about their work (see Attridge, 2009, for a review). Over the past 10 years, work engagement has become a key concept in organizational and occupational psychology and human resource management (where it is often referred to as “employee engagement”) because it has shown positive relationships with a range of desirable outcomes at work such as work motivation, job performance, and employee well-being (e.g., Bakker & Bal, 2010; van Beek, Taris & Schaufeli, 2011). Moreover, employees who are engaged are regarded a most valuable resource for employers (van Beek et al., 2011). Hence it comes as no surprise that research on work engagement is flourishing, and work engagement is receiving increased attention from researchers, practitioners, employers, and policy makers (Attridge, 2009; Bakker, Albrecht, & Leiter, 2011a; Schaufeli & Salanova, 2011).

Despite the great progress that has been made in the past 10 years, there are still a number of important questions for research on work engagement. One key question is how to best measure work engagement (Attridge, 2009; Bakker et al., 2011a, b; Schaufeli & Salanova, 2011; Sonnentag, 2011).

The Utrecht Work Engagement Scale

To measure work engagement, the great majority of studies on work engagement has used the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) which measures three aspects of work engagement: vigor, dedication, and absorption. Vigor captures the effort that employees invest in their work and the energy they experience when working; dedication captures the meaning and involvement in work and the purpose that employees experience when working; and absorption captures the extent to which employees are fully concentrated and

engrossed in their work, sometimes to the extent that they have difficulties detaching themselves from their work (Schaufeli & Bakker, 2003; Schaufeli, Bakker, & Salanova, 2006). Vigor and dedication constitute the core components of work engagement as measured by the UWES representing the positive energy and involvement in work, whereas absorption is a more divergent and controversial component (Bakker et al., 2011a, 2011b; Schaufeli & Salanova, 2011).

The ISA Engagement Scale

The UWES is the by far most popular and widely used instrument to measure work engagement (Schaufeli & Salanova, 2011), and its conceptualization of work engagement as comprising vigor, dedication, and absorption is often used to define the construct (e.g., Bakker et al., 2011a; Childs & Stoeber, 2010). However, there are alternative views and other ways to conceptualize work engagement and its different aspects (see Sonnentag, 2011, for a review), and hence other ways to measure work engagement.

The ISA Engagement Scale (ISAES; Soane, Truss, Alfes, Shantz, Rees & Gatenby, 2012) is a newly developed scale measuring work engagement. Based on the conceptualization Kahn put forward in his 1990 seminal article on personal engagement at work, the ISAES measures three different aspects of work engagement: intellectual engagement, affective engagement, and social engagement. Intellectual engagement captures the degree to which employees are cognitively absorbed in their work and think about ways to improve work, affective engagement captures the degree to which employees experience positive affect through their work, and social engagement captures the degree to which employees feel socially connected in their working environment and share common values with colleagues.

The first studies with the ISAES have yielded promising results (Soanes et al., 2012). Confirmatory factor analyses supported the ISAES's factorial validity confirming the three

different aspects. Moreover, the ISAES total score showed positive correlations with self-reported performance and organizational citizenship behavior and a negative correlation with turnover intentions. When the three subscales were entered competitively, all three contributed significantly to the prediction of turnover intentions, but only intellectual engagement and affective engagement made unique contributions to task performance and organizational citizenship behavior suggesting that the different aspects of engagement may show unique relationships. Finally, Soane and colleagues examined the usefulness of the ISAES in comparison to the UWES when the total scores of the two scales were entered competitively in regression analyses. Results showed that UWES total scores explained additional variance in organizational citizenship behavior and turnover intentions when entered after ISAES total scores, but not in task performance. In contrast, ISAES total scores explained additional variance in all three outcomes when entered after UWES total scores, suggesting that the ISAES captures aspects of work engagement that go beyond the aspects captured by the UWES.

Open Questions and the Present Study

Soanes et al.'s (2012) study however left a number of open questions. First, the study did not investigate how UWES and ISAES total and subscale scores were correlated, which would be important to know to gauge the convergent validity of the two measures and the degree to which their subscales overlap. Second, the study did not examine the correlations of the UWES and ISAES subscale scores with any outcome variables, but only those of the total scores. Moreover, it did not examine how UWES and ISAES subscale scores predicted relevant outcomes when they were entered competitively, which would be important to further explore the subscales' differential relationships. Finally, the study did not include measures investigating the "dark side" of work engagement. There are findings indicating that work engagement is sometimes positively related to negative outcomes. For example, employees high in work

engagement have reported higher levels of work-family conflict and increased job demands over time than employees low in work engagement (see Sonnentag, 2011, for a review). Moreover, work engagement has been linked to workaholism (Bakker et al., 2011a), particularly the absorption aspect of work engagement measured with the UWES (Schaufeli, Taris, & van Rhenen, 2008).

Against this background, the present study aimed to expand on Soanes et al.'s (2012) findings by comparing the UWES and ISAES investigating how the two instruments' total and subscales scores intercorrelated and how they correlated with two positive outcome variables (job satisfaction, organizational commitment) and one negative outcome variable (workaholism). Furthermore, using multiple regression analyses, the study aimed to explore whether UWES and ISAES showed unique relationships when total and subscale scores from the two instruments were entered competitively to predict job satisfaction, organizational commitment, and workaholism.

Method

Participants and Procedure

Two samples of employees were invited to participate in the study. First, employees from a British company providing professional services for caravan and motor home owners were invited through the company's secretary. Second, students from the University of Kent working part-time were invited via the School of Psychology's Research Participation Scheme (RPS). Invitees who agreed to participate were directed to the School's secure Qualtrics® website where they completed all measures online. In return for participation, service employees entered a raffle for £50 (~US \$80) and students received RPS credits. The study was approved by the relevant ethics committee and followed the British Psychological Society's (2009) code of ethics and conduct.

Overall, 133 participants completed the questionnaire: 63 service employees (11 male, 52 female) and 70 students (11 male, 59 female). To ensure that service employees would not feel they could be identified (e.g., by matching their gender and age against the company's records), participants indicated their age on a 5-point scale (1 = under 21, 2 = 21 to 30, 3 = 31 to 40, 4 = 41 to 50, 5 = over 50 years). Service employees showed a mean age of 3.3 ($SD = 1.1$; range = 2-5) and students one of 1.2 ($SD = 0.6$; range = 1-4). Asked for how long they had worked for the company they were presently employed with, service employees reported an average of 5.7 years ($SD = 5.9$; range = 0-28.1) and students 1.4 years ($SD = 1.2$; range = 0-4.5).

Measures

UWES and ISAES. To measure work engagement, we used the short form of the UWES (Schaufeli & Bakker, 2003) which comprises 9 items capturing vigor (3 items; e.g. "At my job, I feel strong and vigorous"), dedication (3 items; e.g. "My job inspires me"), and absorption (3 items; "I feel happy when I am working intensely"); and the ISAES (Soane et al., 2012) which comprises 9 items capturing intellectual engagement (3 items; e.g. "I concentrate on my work"), affective engagement (3 items; e.g. "I feel positive about my work"), and social engagement (3 items; e.g. "I share the same work goals as my colleagues"). The reason for using the short form of the UWES instead of the full-length, 17-item version (Schaufeli & Bakker, 2003) was so that both instruments comprised 9 items with each aspect captured by 3 items making UWES and ISAES scores better comparable. Participants responded to the UWES items on a scale from 0 (*never*) to 5 (*always*) and to the ISAES items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Job satisfaction. To measure job satisfaction, we used the short form of the Minnesota Satisfaction Questionnaire (MSQ; short form: Weiss, Dawis, England, & Lofquist, 1977). The questionnaire comprises 20 items describing various aspects of people's jobs (e.g., "The chance

to do different things from time to time,” “The way my job provides for steady employment,” “The competence of my supervisor in making decisions”). Participants were asked how satisfied there were with each aspects responding on a scale from 1 (*dissatisfied*) to 5 (*satisfied*). The MSQ is a widely used measure of job satisfaction that has demonstrated reliability and validity across different samples and occupations (e.g., Gillet, & Schwab, 1975) and is often used as a benchmark against which other measures of job satisfaction are evaluated (e.g., van Saane, Sluiter, Verbeek, & Frings-Dresen, 2003).

Organizational commitment. To measure organizational commitment, we used the Organizational Commitment Questionnaire (OCQ; Porter, Steers, Mowday, & Boulian, 1974) which comprises 15 items assessing general organizational commitment (e.g., “I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful”). The instructions informed participants that the statements represented feelings people might have about their company, and participants responded on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The OCQ is a widely used instrument to measure organizational commitment and has demonstrated reliability and validity in numerous studies (see Riketta, 2002).

Workaholism. To measure workaholism, we used the Dutch Work Addiction Scale (DUWAS; Schaufeli, Shimazu, & Taris, 2009). The scale comprises two subscales: Working Excessively (5 items; e.g., “I spend more time working than socializing with friends, on hobbies, or on leisure activities,”) and Working Compulsively (5 items; e.g., “I feel obliged to work hard even if it is not enjoyable”). Participants responded to all items on a scale from 1 (*[almost] never*) to 4 (*[almost] always*). The DUWAS has demonstrated good reliability and validity in various samples (e.g., del Libano, Llorens, Salanova, & Schaufeli, 2010; Schaufeli, Bakker, van der Heijden, & Prins, 2009). In the present sample however both subscale scores showed

unsatisfactory reliabilities (Cronbach's alphas below .70; cf. Nunnally & Bernstein, 1994).

Consequently—following findings indicating that the *combination* of working excessively and working compulsively represents problematic workaholism (Schaufeli, Bakker, et al., 2009)—the subscales were combined to form one score measuring overall workaholism, which showed a satisfactory reliability (see Table 1).

Preliminary Analyses

First, we computed scale scores by averaging answers across items. Because multivariate outliers can severely distort the results of correlation and regression analyses, we examined the data for multivariate outliers regarding the 11 variables of our analyses (UWES subscale scores, ISAES subscale scores, job satisfaction, organizational commitment, workaholism, gender, subsample; UWES and ISAES total scores were excluded because they are linear combinations of the subscales scores). Three students (one male, two female) showed a Mahalanobis distance larger than the critical value of $\chi^2(11) = 31.26, p < .001$ (Tabachnick & Fidell, 1989) and were excluded from the analyses. With this, our final sample comprised 130 participants (63 service employees [11 male, 52 female], 67 students [10 male, 57 female]; see Table 1).

Next, we examined the data for possible gender and subsample differences conducting MANOVAs with gender (1 = female, 0 = male) and subsample (1 = service employees, 0 = students working part-time) as between-participants factors and the 9 remaining variables (UWES subscale scores, ISAES subscale scores, job satisfaction, organizational commitment, workaholism) as dependent variables. Results showed significant main effects of gender and subsample (gender: $F = 2.39, p < .05$; subsample: $F = 4.11, p < .001$) whereas the interaction of gender \times subsample was nonsignificant ($F < 1, p > .70$). However, follow-up analyses showed for none of variables significant gender differences when examined individually (see Table 1, gender correlations). In contrast, there were numerous subsample differences: Compared to

students working part-time, service employees showed significantly higher vigor, absorption, dedication, intellectual engagement, affective engagement, job satisfaction, and organizational commitment (see Table 1, subsample correlations). Hence subsample was controlled for in all regression analyses.

Results

Bivariate Correlations

First we examined the bivariate correlations (see Table 1). As expected, UWES and ISAES subscale and total scores showed large positive correlations: the total scores showed a correlation of .77, and the subscale scores correlations from .50 (absorption, social engagement) to .82 (dedication, affective engagement). Furthermore, as was expected, scores from both scales showed large positive correlations with job satisfaction (.64 to .78) and organizational commitment (.52 to .73). In addition, they showed medium-sized positive correlations with workaholism (.32 to .45). However, although there was considerable overlap between the UWES and ISAES subscale and total scores, the range in the size of correlations suggested that the two instruments tap somewhat different aspects of work engagement and may show unique relationships with job satisfaction, organizational commitment, and workaholism when their overlap was controlled for.

Multiple Regression Analyses

To examine whether UWES and ISAES total and subscale scores showed unique relationships, we conducted a series of multiple regression analyses controlling for subsample. First we examined the total scores. For this, we conducted three separate regression analyses with job satisfaction, organizational commitment, and workaholism as outcome variables and the total scores as predictors, entering the total scores simultaneously to examine how they predicted the outcomes when directly competing with each other. Table 2 (Model 1) shows the results.

Both UWES total score and ISAES total score explained unique variance in job satisfaction showing significant positive regression weights. In contrast, the ISAES total score (but not the UWES total score) explained unique variance in organizational commitment whereas the UWES total score (but not the ISAES total score) explained unique variance in workaholism, both showing significant positive regression weights.

Next we examined the subscale scores. However, when entering all six subscale scores simultaneously, collinearity diagnostics showed low tolerance values, near-zero eigenvalues, and high condition indices for the predictors indicating possible multicollinearity problems (Tabachnick & Fidell, 1989) which was not surprising given the high intercorrelations between the subscales scores (cf. Table 1). Consequently, we decided to enter the subscale scores stepwise using “statistical regression” (Tabachnick & Fidell, 1989), first entering the score that showed a significant regression weight ($p < .05$) and explained the largest percent variance in the outcome variable and then stepwise entering further scores with significant regression weights (always giving priority to the one with the largest regression weight) until none of the remaining scores was significant explaining further variance in the outcome variable ($p \geq .05$). Table 2 (Model 2) shows the results.

Regarding job satisfaction, UWES absorption and ISAES affective engagement emerged as unique predictors showing positive regression weights. Regarding organizational commitment, UWES vigor and dedication and ISAES intellectual engagement and social engagement emerged as unique predictors. However, only the latter three showed positive regression weights, whereas vigor showed a negative regression weight. This may explain why the ISAES total score, but not the UWES total score predicted organizational commitment (see Table 2, Model 1) because, when combined in the UWES total score, the positive effect of dedication and the negative effect of vigor may have cancelled each other out. Finally, regarding

workaholism, UWES absorption and ISAES intellectual engagement emerged as unique predictors showing positive regression weights, which suggests that absorption and intellectual engagement may represent aspects of work engagement that are not always positive but have a “dark side.”

Discussion

The aim of the present study was to compare two multidimensional instruments for the assessment of work engagement—the popular and widely used Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) capturing vigor, dedication and absorption and the newly developed ISA Engagement Scale (ISAES; Soane et al, 2012) capturing intellectual, affective, and social engagement—regarding their relationships with two positive job outcomes (job satisfaction, organizational commitment) and one negative outcome (workaholism, conceptualized as working excessively and compulsively). When we examined the instruments’ total scores and subscale scores’ bivariate correlations and conducted multiple regressions to explore the scores’ unique relationships, results showed large positive correlations between UWES and ISAES total and subscale scores, as would be expected from measures tapping the same construct. Still, as the regression analyses revealed, UWES and ISAES total and subscale scores showed unique relationships with the outcomes.

Whereas both total scores showed positive relationships with job satisfaction, only the ISAES total score predicted organizational commitment and only the UWES total score predicted workaholism when the total scores were entered simultaneously in the regressions. When the subscale scores were regarded, however, both UWES and ISAES subscales scores made significant contributions to all three outcomes: absorption and affective engagement predicted job satisfaction; dedication, vigor, affective engagement, and social engagement predicted organizational commitment; and absorption and intellectual engagement predicted

workaholism. Moreover, all subscale scores showed positive regression weights, except vigor. Once the positive effects of dedication, affective engagement, and social engagement were accounted for, vigor had a unique negative effect on organizational commitment.

The findings confirm that engagement is a state of mind associated mostly with positive outcomes at work, but may also have a “dark side.” Corroborating previous findings (Schaufeli et al., 2008), UWES absorption was a unique positive predictor of workaholism. In addition, ISAES intellectual engagement positively predicted workaholism over and beyond UWES absorption, corroborating views that some forms of work engagement are linked to workaholism (Bakker et al., 2011a) and that more engagement is not necessarily better and there may be costs involved in being highly engaged (George, 2011).

The study had a number of limitations, however. First, the sample was predominantly female. Although we did not find any significant gender differences, future studies may profit from employing samples with a greater percentage of male participants and reinvestigate possible gender effects. Second, statistical stepwise regression—which we used to investigate the unique relationships of the subscale scores to avoid problems with multicollinearity—is a method that is often frowned upon because it may overfit the data (Tabachnick & Fidell, 1989). Hence the findings need to be interpreted with caution and replicated in future studies. This goes in particular for the finding of vigor having an unexpected negative effect on organizational commitment once the effects of dedication, affective engagement, and social engagement were controlled for, suggesting a possible suppression effect because vigor showed a positive relationship with organizational commitment in the bivariate correlations. Finally, we used the shortened version of the UWES because it has the same length and structure as the ISAES (nine items with three items measuring each of the three aspects of engagement) making the two instruments better comparable. Hence the findings may not generalize to the full-length, 17-item

version of the UWES. However, because the shortened version contains the items that best represent each component (Schaufeli & Bakker, 2003) and our findings are in line with Soane et al.'s (2012) who used the full-length version, we are confident that we would have obtained similar findings had we used the full-length version of the UWES.

Despite these limitations, the study has important implications. First, the findings indicate that both scales—the UWES and the ISAES—capture key aspects of work engagement that show significant relationships with job outcomes that are of central interest to organizational and occupational psychology and human resource management: job satisfaction, organizational commitment, and workaholism. Second, while showing substantial overlap, the two scales are not redundant, but explain unique variance in job outcomes. Therefore, it is suggested that researchers and practitioners interested in work engagement use both scales in combination to cover all important aspects of work engagement. Because both scales are very short—the UWES short-form comprises nine items and the ISAES nine items (meaning that together they comprise only one item more than the full-length UWES)—this would not significantly increase the burden on employees' time when completing surveys. Third, the findings encourage researchers using the UWES and ISAES to investigate the relationships of both total and subscales scores. The reason is that the subscale scores may show different patterns than the total scores and provide additional useful information about how work engagement and its components differentially relate to various positive and negative outcomes in employees. Finally, the findings demonstrate that it is important that engagement research should not limit itself to studying engagement as defined by the UWES (Bakker et al., 2011b), but incorporate other measures of work engagement to further increase our understanding of work engagement and its different aspects. The ISA Engagement Scale is a measure worth considering in this endeavor.

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Table 1
Bivariate Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12
UWES												
1. Vigor												
2. Dedication	.79											
3. Absorption	.76	.77										
4. Total score	.92	.93	.92									
ISAES												
5. Intellectual Engagement	.58	.69	.59	.68								
6. Affective engagement	.73	.82	.69	.81	.83							
7. Social engagement	.58	.63	.50	.62	.64	.76						
8. Total score	.69	.78	.65	.77	.90	.95	.88					
9. Job satisfaction	.67	.74	.68	.76	.66	.78	.64	.76				
10. Organizational commitment	.53	.69	.52	.63	.63	.73	.65	.73	.72			
11. Workaholism	.42	.35	.49	.45	.44	.43	.32	.43	.43	.27		
12. Gender	-.11	-.03	.03	-.04	-.10	-.03	.09	-.01	.08	.11	.00	
13. Subsample	.27	.30	.26	.30	.36	.27	.16	.29	.29	.38	.10	-.04
<i>M</i>	2.60	3.24	2.93	2.92	5.66	5.33	5.04	5.34	3.68	4.84	2.48	—
<i>SD</i>	1.15	1.22	1.22	1.10	1.32	1.35	1.39	1.23	0.71	1.12	0.51	—
Range	0-5	0-5	0-5	0-5	1-7	1-7	1-7	1-7	1-5	1-7	1-4	—
Cronbach's alpha	.83	.87	.81	.93	.93	.89	.86	.94	.92	.90	.78	—

Note. $N = 130$. UWES = Utrecht Work Engagement Scale; ISAES = ISA Engagement Scale. Gender was coded 1 = female, 0 = male; subsample was coded 1 = service employees, 0 = students working part-time. Range = theoretical range. Correlations $> .17$ are significant with $p < .05$, correlations $> .22$ with $p < .01$, and correlations $> .28$ with $p < .001$.

Table 2

Summary of Multiple Regression Analyses: UWES and ISAES Scores Predicting Work Satisfaction, Organizational Commitment, and Workaholism

Model, predictor variables, and percent variance explained	Criterion variable		
	Job satisfaction	Organizational commitment	Workaholism
Model 1			
Subsample	.04	.18*	-.05
UWES total score	.41***	.12	.30*
ISAES total score	.44***	.59***	.22
<i>R</i> ² (engagement)	.57***	.43***	.22***
Model 2			
Subsample	.06	.20***	-.08
UWES			
Vigor	—	-.19*	—
Dedication	—	.34**	—
Absorption	.26***	—	.36***
ISAES			
Intellectual engagement	—	—	.26**
Affective engagement	.58***	.35**	—
Social engagement	—	.25**	—
<i>R</i> ² (engagement)	.58***	.47***	.27***

Note. *N* = 130. UWES = Utrecht Work Engagement Scale; ISAES = ISA Engagement Scale. Subsample was coded 1 = service employees, 0 = students working part-time. Model 1 = all variables entered simultaneously; Model 2 = sample entered first, followed by UWES and ISAES subscale scores that explained significant (*p* < .05) variance in the dependent variable entered stepwise (see Analytic Strategy section for details). *R*² (engagement) = percent variance in dependent variable explained by UWES and ISA Engagement Scale scores, ignoring variance explained by subsample.

p* < .05, *p* < .01, ****p* < .001.