Turkish Version of the Work and Meaning Inventory (WAMI): Validity and Reliability Study

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Abstract
The aim of this research is to examine the validity and reliability of the Turkish version of The Work and Meaning Inventory (WAMI). The participants of this study consisted of 352 teachers. The validity and reliability of scale was investigated by test re-test, Cronbach alpha, confirmatory factor analysis and criterion related validity methods. The Job Crafting Scale (JCS) was used for the criterion related validity. The results of confirmatory factor analysis indicated that 10 items loaded on three factors (positive meaning, meaning making through work, and greater good motivations): $\chi^2/df = 2.15$, RMSEA = .087, CFI = .98, IFI = .98, NFI = .94, NNFI = .96, SRMR = .057. In the concurrent validity significant relationship ($r = .41$) was found between total WAMI and the Job Crafting Scale. The internal consistency coefficients of three subscales were .68, .64, and .73, respectively. The overall internal consistency coefficient of the scale was .86. Test-retest reliability coefficient was .69. The corrected item-total correlations of WAMI ranged from .30 to .62. Overall findings demonstrated that this scale had high validity and reliability scores and that it may be used as a valid and reliable instrument in order to measure diverse ideas of individual about meaningful work. Nevertheless, further studies that will use WAMI are important for its measurement force.

Keywords: Meaningful work, validity, reliability, confirmatory factor analysis

Introduction

Jobs and careers are not just means for financial income or passing time; they are also expected to provide some meaning for the individual. Meaningful work as a concept that has attracted researchers, yet there is no consensus about the qualities and components of this experience in spite of certain endeavors for operationally defining the construct (Steger et al., 2012). Rosso et al. (2010) and view meaningful work as a positive experience, rather than a general term for all meanings attributed to work; Steger et al. (2012) continues pointing out meaningful work as a demonic (growth- and purpose-oriented) positive process rather than hedonic (pleasure-oriented) process.

Meaningful work is a crucial concept since it is significant for its positive outcomes for organizations as well as for its being an ethical or moral obligation for organizations (Michaelson, 2005). Meaningful work is associated with greater well-being (Arnold et al., 2007), feelings of
centrality and importance (Harpaz and Fu, 2002), and greater job satisfaction (Kamdron, 2005). Studies on meaningful work suggests that it can be characterized by a variety of skills like opportunity to complete an entire task, task significance to other people, military pride, engagement, challenge, work role identity, work values, work centrality, intrinsic work orientation, good pay, spirituality, and reputation; and there is no scale measuring the construct which has adequate psychometric properties (Steger et al., 2012). Hackman and Oldham, (1976) has introduced the first instrument on the construct MW (meaning work), which does not have adequate psychometric qualities, and all the other instruments mainly modified this scale, thus there was a need for a new measure on meaningful work (Steger et al., 2012).

Wrzesniewski (2003) stressed the significance of workplace relations for the experience of meaningful work; Wrzesniewski et al. (1997) offered the desire to serve the greater good as a component of meaningful work and Ashforth (2001) offered making sense of one’s self as the key aspect of meaningful work. Steger et al. (2012) conceptualize meaningful work as consisting of three primary aspects: (1) Psychological Meaningfulness (PM) in work, the personal significance of the job; (2) Meaning making (MM) through work: meaning in life as a whole as linked with meaningful work; (3) Greater good (GG) motivations: The need to make a positive impact on the greater good for especially others.

The construct meaningful work was assessed using Steger et al.’s (2012) The Work and Meaning Inventory (WAMI). The 10-item five-point Likert-type scale (1: strongly disagree to 5: strongly agree) is composed of three subscales [Psychological Meaningfulness (PM), Meaning Making (MM) through work, Greater Good (GG) motivations] which make up the over-arching construct of MW that are confirmed by factor analysis. The results of confirmatory factor analysis indicated that the three-dimensional MW model (PM, MM, GG) model was acceptably fit ($x^2$/df = 69.05, df = 30 RMSEA = .090, CFI = .97). The Cronbach’s Alpha internal consistency of the scale was as .89 for positive meaning dimension, .82 for meaning making through work dimension, .83 for greater good motivations dimension and .93 for whole scale.

The Work and Meaning Inventory (WAMI), as an instrument devised for assessing the construct of meaningful work, which has sufficient psychometric properties, is presented to the attention of researchers and practitioners in Turkey for utilization in evaluation and research activities in various areas like management, organizational behavior and leadership.

Method

Participants
Participants were 352 (189 female and 163 male) teachers who were employed in different schools in Istanbul and Sakarya, Turkey. The mean age of the participants was 34.8.

Instrument
Job Crafting Scale (JCS): Tims Bakker and Derk (2012) developed original form of the Job Crafting Scale (JCS) and it was adapted to Turkish by Hamedoğlu et al. (2012). The results of confirmatory factor analysis demonstrated that the 21 items loaded on four factors: $x^2$/df = 1.94, RMSEA = .049, NNFI = .94, CFI = .95, IFI = .95, GFI = .92, AGFI = .90, and SRMR = .068. The internal consistency coefficients of four subscales were .90, .72, .76, and .75, respectively and .84 for the scale. The corrected item-total correlations of JCS ranged from .33 to .87.

Procedure
Primarily translation of the WAMI into Turkish was based on the kind permission of Michael F. Steger. As the first step three specialists who were a native Turkish speaker fluent in English translated English version into Turkish. Then they translated the Turkish version of the WAMI back into English. The differences between translated versions were evaluated and a
satisfactory compliance with the original scale was achieved by consensus of the translators. Three researchers from department of English Language and Literature evaluated the completed Turkish version for cultural appropriateness, controversial items were determined and necessary modifications were done. In this study confirmatory factor analysis (CFA) was executed to confirm the original scale’s structure in Turkish culture (Büyüköztürk, 2011; Sümer, 2000; Şimşek, 2007; Yılmaz ve Çelik, 2009). Also concurrent validity, internal consistency reliability, the item-total correlations, test-retest reliability and the differences between mean scores of upper 27% and lower 27% groups were examined. Data were analyzed using LISREL 8.54 and SPSS 17.0 package programs.

Results

Construct Validity

The results of confirmatory factor analysis indicated that 10 items loaded on three factors (positive meaning, meaning making through work, and greater good motivations): \( \chi^2/df = 2.15, \) RMSEA = .087, CFI = .98, IFI = .98, NFI = .94, NNFI = .96, SRMR = .057. Factor loadings and path diagram of Turkish version of WAMI are presented in Figure 1.

![Figure 1. Factor Loadings and Path Diagram for the WAMI](image-url)
**Concurrent validity**

In the concurrent validity significant relationship \((r= .41)\) was found between total WAMI and the Job Crafting Scale. Besides, Job Crafting Scale to be related positively to the positive meaning sub-dimension \((r= .33)\), as well as to meaning making through work sub-dimension \((r= .36)\), greater good motivations sub-dimension \((r= .42)\) of the WAMI.

**Reliability**

For reliability of the Turkish version of the WAMI internal consistency coefficient was calculated. The Cronbach’s Alpha internal consistency of the scale was as .68 for positive meaning dimension, .64 for meaning making through work dimension, .73 for greater good motivations dimension, and .8 for whole scale. Test-retest reliability coefficient was .69 after 28 days. The corrected item-total correlations of WAMI ranged from .30 to .62. The \(t\)-test results differences between each item’s means of upper 27% and lower 27% points were significant \((p < .05)\). The item analysis result and descriptive statistics are presented in Table 1.

<table>
<thead>
<tr>
<th>Items</th>
<th>Corrected item-total correlation</th>
<th>Upper 27% group (t)</th>
<th>Lower 27% group (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.30</td>
<td>-17.17***</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>.35</td>
<td>-15.68***</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>.48</td>
<td>-17.07***</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>.52</td>
<td>-15.49***</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>.46</td>
<td>-15.03***</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>.60</td>
<td>-14.31***</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>.55</td>
<td>-14.81***</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>.57</td>
<td>-15.02***</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>.46</td>
<td>-14.94***</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>.62</td>
<td>-15.04***</td>
<td></td>
</tr>
</tbody>
</table>

*** \((p < .001)\)

**Table 1.** The WAMI item-total correlation, \(t\)-test results differences between each item’s means of upper 27% and lower 27% group

**Discussion and Conclusion**

The purpose of this study was to adapt the WAMI into Turkish and examine its psychometric properties. Confirmatory factor analysis demonstrated that the factor structure was harmonized with the factor structure of the original scale. Thus, it can be concluded that the structural model of the WAMI, which consists of three factors, was well fit to the Turkish culture (Bentler and Bonett,
1980; Hu and Bentler, 1999; Schermelleh-Engel and Moosbrugger, 2003). The internal consistency reliability coefficients of the scale were high (Büyüköztürk, 2010; Kline, 2000).

Considering that item total correlations having a value of .30 and higher and significant test results differences between each item’s means of upper 27% and lower 27% are generally considered to be adequate in terms of distinguishing between the traits to be measured for construing item total correlation, it is possible to state that item total correlations and t-test result regarding the scales are adequate (Büyüköztürk, 2010). Overall findings demonstrated that this scale had high validity and reliability scores and that it may be used as a valid and reliable instrument in order to measure diverse ideas of individual about meaningful work. Nevertheless, further studies that will use WAMI are important for its measurement force.

References


