Turkish Version of the Principals’ Sense of Efficacy Scale: Validity and Reliability Study

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Abstract

Problem Statement: Principals are known as important actors in effective schools. So it is important to know which variables influence principals’ success. One of these predictors can be self-efficacy. However, there is very few research about principals’ sense of efficacy.

Purpose of the Study: The purpose of this research was to test the psychometric properties of the Turkish version of the Principal Sense of Efficacy Scale (PSES-T).

Method: Confirmatory and Exploratory factor analysis were conducted in order to determine the factor structure of the scale. Two independent samples of school administrators were used for this analysis. The relationship between social support and PSES-T were also examined in order to test the concurrent validity of the scale. Finally, internal consistency of scale was tested by using Cronbach alpha.

Findings: Confirmatory factor analyses (CFA) were performed using maximum likelihood estimations, in order to assess the structural validity of the Turkish version of PSES. The model indices were \( \chi^2/df = 2.80 \), CFI=.873, TLI=.87, RMSEA=.100, SRMR=.064, suggesting an unacceptable fit of the model to the data. Concluding that 3 factor 18-item PSES did not fit the data obtained from a Turkish sample, an exploratory factor analysis (EFA) was conducted to further explore the factor structure of the 18-item PSES that better represented the sample data. EFA results showed strong
evidence for a single factor structure of scale. Total variance explained by a single factor was 41% and factor loadings ranged from .50-.74 (M=.64). Based on the results of the EFA, the single factor model with 18 items was tested on a second sample by using CFA with the maximum likelihood method. Results indicated that single factor PSES met goodness-of-fit criteria; χ²/df= 1.6, CFI=.95, TLI=.94, RMSEA= .06, and SRMR=.04. As to the reliability results, Cronbach’s Alpha was calculated as .94 for the whole scale. Also, low to moderate correlations were found between social support, and PSES was evidence for concurrent validity of scale.

Conclusion and Recommendations: The overall findings of the present study provide evidence for the validity and reliability of the PSES with a Turkish sample. Validation and reliability studies of the PSES within different cultural contexts and samples are crucial for the generalizability of the scale. The current study is important in terms of bringing this scale into Turkish literature.

Keywords: Principals’ sense of efficacy, self-efficacy, validity, reliability.

Introduction

Principals are known as important actors in effective schools. So it is important to know which variables influence principals’ success. One of these predictors can be self-efficacy. Previous research suggests that there is a relationship between principals’ self-efficacy and effectiveness (Anderson, Krajewski, Goffin, & Jackson, 2008; Judge & Bono, 2001; McCullers & Bozeman, 2010; Ramchunder & Martins, 2014). Given the importance of better understanding self-efficacy, further research is needed in different samples and cultures. Since valid and reliable measures are requisites of doing culturally responsive research, the aim of this study was to examine psychometric qualities of PSES in a Turkish sample.

Self-Efficacy

Self-efficacy is embedded within social cognitive theory and developed its roots from the social learning theory. Bandura (1986) indicates that self-efficacy is a concept resulting from the interaction of behaviors, environmental variables, and personal variables.

Self-efficacy is defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, p.1), “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p.3), or “beliefs in one’s abilities to mobilize the motivation, cognitive resources, and courses of action needed to meet situational demands” (Wood & Bandura, 1989, p.48). Self-efficacy is commonly used as a domain-specific construct rather than being a general trait (Bandura, 1986). Self-efficacy can be generalized for similar situations; however,
it can be low in another field while one’s self-efficacy is high in a certain field (Bandura, 1982).

According to Bandura (2012) there are four factors that determine self-efficacy: (1) mastery experiences, (2) vicarious experiences, (3) verbal persuasion, and (4) physiological arousal. Mastery experience has been identified as the most powerful variable of self-efficacy. Mastery experiences are stated as prior experiences concerning a given task (Milner & Hoy, 2003; Tschannen-Moran & Gareis, 2007). While successful experiences increase one’s self-efficacy beliefs, unsuccessful experiences negatively affect these beliefs. Vicarious experiences result from learning by modeling and observing others (Tschannen-Moran & Gareis, 2007). Bandura (1994) explains that people observe others who are similar to them and who are successful in their jobs; in this regard people enhance a belief that they can be successful, too. Verbal persuasion is a kind of feedback concerning one’s success in a given task (Bandura, 1986). Bower and Hilgard (1981) state that people who are persuaded about their personal skills put forth more effort, proceed in their efforts even if they make mistakes, and take responsibility when they face with problems. Individuals often associate their stress and tension with their lack of abilities (Milner & Hoy, 2003).

Bandura (1997, p.3) stated that self-efficacy influences: (1) which behavior people choose to pursue, (2) how much effort they spend, (3) how long they will persevere in the face of obstacles and failures, (4) their resilience to difficulties, (5) whether their thought patterns are self-hindering or self-aiding, and (6) how much stress or anxiety they experience in coping with environmental demands. Similarly, Gist and Mitchell (1992) propose that self-efficacy is a very important motivational structure that affects personal preferences, goals, emotional reactions, effort, coping, and resistance.

Within educational literature there are many studies that show teacher and student self-efficacy beliefs can be associated with learning and teaching. Studies on students’ self-efficacy indicate that: self-efficacy has a role in enhancing the motivation to learn, students with high self-efficacy endeavor more to succeed, and there is a strong relationship between self-efficacy and success (Altun & Aykoc, 2009; İşinsal, 2002; Pajares, 1996).

There are many studies intended to determine teachers’ and teacher candidates’ self-efficacy in different areas such as use of computer (Orhan, 2005), science teaching (Hamurçu, 2006; Yalçın, 2011), math teaching, (Dede, 2008), and teachers’ self-efficacy beliefs (Babaoğlan & Korkut, 2010; Kulekçi, 2011). Furthermore, there are studies that investigate the relationship between teachers’ self-efficacy and student success (Allinder, 1995; Bandura, 1993; Copraro, Barbaraneli, Steca, & Malone, 2006; Gaddard, Hoy, & Hoy, 2000; Schunk, 1989; Tschannen-Moran & Barr, 2004). These studies indicate that teachers who have strong self-efficacy beliefs are more successful in increasing students’ success and motivation. As a result of Bandura’s (1993) research, being taught by teachers with low self-efficacy decreases students’ self-efficacy and performance expectations.
Principal self-efficacy

The principal is regarded as a key agent, initiating change by raising the level of expectations for both teachers and students (Tschannen-Moran & Gareis, 2004). Leadership self-efficacy is important because it affects followers’ attitudes and performance (Chemers, Watson, & May, 2000; Lehman, 2007). Principal self-efficacy can be defined as a kind of leadership self-efficacy that is related to the level of self-confidence, ability, and skill to act as a leader among other people (Hannah, Avolio, Luthans, & Harms, 2008). Principal self-efficacy is a perception related to planning, organizing and executing tasks and relationships with other people and organizations (Federici & Skaalvik, 2011).

Especially within the last decade, principal self-efficacy has emerged as a significant issue and is of interest to researchers after the development of instruments assessing this subject (e.g., Principals Self-Efficacy Scale, Dimmock & Hattie, 1996). Of these instruments, the Principal Sense of Efficacy Scale (PSES; Tschannen-Moran & Gareis, 2004) has received much attention (Brown, 2010; Lockard, 2013; McCullers & Bozeman, 2010; Moak, 2010; Versland, 2009; Watts, Kolsun, Cline, & Williams, 2011; Williams, 2012). Validation and reliability studies of the PSES within different cultural contexts and samples are crucial for the generalizability of the scale. Therefore, the aim of the present study was to examine psychometric qualities of PSES in a Turkish sample.

Method

The aim of this study is to conduct validity and reliability analysis of the Turkish version of the Principal Sense of Efficacy Scale (PSES-T).

Participants

Two independent samples of school administrators from Turkey were used for this study: (a) Exploratory Factor Analysis (EFA) sample, and (b) Confirmatory Factor Analysis (CFA) sample. The first sample contained 150 school principals (11% women, and 89% men). Their principal seniority ranged from 1 to 33 years (M = 9.8, SD = 7.9). All participants were either principals (60%) or assistant principals (40%). The second sample contained 150 school principals (10% women, and 90% men). Principal seniority ranged from 1 to 37 years (M = 8.6, SD = 7.01). Of them, 57% were principals and 43% were assistant principals.

Measures

Principal Sense of Efficacy Scale (PSES). The PSES (Tschannen-Moran & Gareis, 2004) is an 18-item scale that assesses a principal’s belief about his/her management skills. Respondents rate their confidence on a 9-point Likert-type scale from 1 (none at all) to 9 (a great deal). The PSES consists of three subscales (Efficacy for Management, Efficacy for Instruction, and Efficacy for Moral Leadership). Respectively, sample items include “prioritize among competing demands of the job”, “facilitate student learning in your school”, and “promote ethical behavior
among school personnel”. Scores can range from 18 to 162, with higher scores reflecting a higher sense of principal efficacy. Construct validity was supported by negative correlation with work alienation and positive correlation with trust in teachers. The scale has good internal consistence with alphas of .91 for the total scale and .86 to .89 for the subscales.

**Interpersonal social support.** Interpersonal social support was measured through questions related to principals’ received support following the study by Tschannen-Moran and Gareis (2007). Interpersonal social support was measured directly by asking participants to rate the level of support they receive from the superintendent, central office, teachers, school staff, parents, and students (e.g., How would you rate the quality of support you receive the central office in your school principal tasks?) on a 5-point scale ranging from the lowest quality to the highest. Exploratory factor analysis (EFA) was conducted to explore the factor structure of the interpersonal social support questions. Two factors emerged with eigenvalues over 1.0 (3.0-1.1), which accounted for 70% of shared variance. The questions related to social support within the school (staff, teachers, parents, and students) had factor loadings that ranged from .77 to .82; social support out of he (superintendent and central-office staff) had factor loadings of .83 and .89. The results of these analyses were similar to Tschannen-Moran and Gareis’s (2007) findings.

**Procedures**

The study was conducted after obtaining permission from Tschannen-Moran and Gareis. The translation process was done in two stages: first, the original form was translated to Turkish by the authors; second, back translation was made by two language experts and back translated versions were compared with the original version by a native English speaker. In addition to this application to assess language appropriateness, a sample of twelve school administrators was consulted. After feedback from the sample, item wordings and instructions were revised.

Participants of the study were school principals who were drawn from a population of about 420 schools in the central region of Turkey. The names of the schools were obtained from the Konya Provincial Education Directorate. Packets of instruments, along with an explanatory letter, a demographic information sheet, a written consent form, information about anonymity, and a postage paid self-addressed envelope were mailed to the participants. Of the 420 packets of instruments and forms, 324 were returned, with a return rate of 77.1%. After checking for the missing responses and validity item (which forced respondents to mark “3” for that rating), 24 respondents were not included in the analyses.

**Analysis**

The psychometric characteristics of the instrument were analyzed through studies of reliability (internal consistency; by Cronbach’s Alpha, corrected item-total correlations, and means difference between upper 27% and lower 27%), confirmatory factor analysis (CFA), and exploratory factor analysis (EFA), which was conducted to examine the factor structure. Finally, the correlations between PSES and
organizational support were examined in order to test the convergent validity of the scale.

Pearson correlations, EFA, t-test, and Cronbach’s Alpha analyses were conducted with SPSS version 15 for Windows. Confirmatory factor analyses with maximum likelihood (ML) estimation and fit statistics were done with AMOS 16.0.

Results

Prior to analysis, statistical assumptions were evaluated to ensure normal distribution and multivariate analysis for both samples. The skewness and kurtosis values range from -0.35 to -1.07 and -0.26 to -1.15, respectively. This clearly suggests that the items conform to the assumption of confirmatory factor analysis for this sample. Table 1 displays descriptive data of the PSES-T for both samples.

Table 1. Descriptive Data for the PSES-T for Samples 1 and 2

<table>
<thead>
<tr>
<th>Items</th>
<th>Sample 1 (n=150)</th>
<th>Sample 2 (n=150)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>6.8</td>
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</tr>
<tr>
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<td>1.5</td>
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<tr>
<td>3</td>
<td>7.2</td>
<td>1.3</td>
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<tr>
<td>4</td>
<td>7.3</td>
<td>1.3</td>
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<tr>
<td>5</td>
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<td>1.3</td>
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<td>6</td>
<td>7.5</td>
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<td>7</td>
<td>6.9</td>
<td>1.6</td>
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<td>6.6</td>
<td>1.9</td>
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<tr>
<td>9</td>
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<tr>
<td>10</td>
<td>7.7</td>
<td>1.3</td>
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<td>11</td>
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<tr>
<td>12</td>
<td>6.9</td>
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<tr>
<td>13</td>
<td>7.3</td>
<td>1.4</td>
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<tr>
<td>14</td>
<td>7.8</td>
<td>1.3</td>
</tr>
<tr>
<td>15</td>
<td>7.5</td>
<td>1.6</td>
</tr>
<tr>
<td>16</td>
<td>7.9</td>
<td>1.2</td>
</tr>
<tr>
<td>17</td>
<td>6.9</td>
<td>1.6</td>
</tr>
<tr>
<td>18</td>
<td>7.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Structural Validity

Confirmatory factor analyses (CFA) were performed using maximum likelihood estimations in order to assess the structural validity of the Turkish version of PSES. These analyses were performed using the AMOS statistical package. In order to assess the model fit, we used the $\chi^2$, $\chi^2$ per degree of freedom ($\chi^2$/df), the goodness of fit index (GFI), the comparative fit index (CFI), the root mean square error of
approximation (RMSEA), the standardized root mean square residual (SRMR), and the comparative fit index (CFI). Cutoff levels for determining the model fit were: $\chi^2/df \leq 3$, CFI, TLI $\geq .90$, RMSEA, and SRMR $\leq .08$ (Hu & Bentler, 1999, Schreiber, Nora, Stage, Barlow, & King, 2006). The model indices were $\chi^2/df = 2.80$, CFI=.873, TLI=.87, RMSEA=.100, and SRMR=.064, suggesting an unacceptable fit of the model to the data.

Concluding that 3 factor 18-item PSES did not fit the data obtained from a Turkish sample, an exploratory factor analysis (EFA) was conducted to further explore the factor structure of the 18-item PSES-T that better represented the sample data. The adequacy of the data for factor analysis was supported by Kaiser’s measure of sampling (KMO) value of .88 and Barlett test of sphericity $\chi^2 = 1207.0$ ($p < .001$). A principal component factor analysis with varimax rotation was conducted. Based on the results, factors 1, 2, and 3 had eigenvalues of 7.39, 1.46, 1.16 and accounted for 41, 8, and, 6.4% of variance, respectively. Although three factors have eigenvalues above 1, examination of the scree plot and the second and the third factors made a weak contribution to the total of variance, suggesting a strong single factor structure (Çokluk, Şekercioğlu, & Büyüköztürk, 2010). Factor loadings in single factor structure ranged from .50 -.74 ($M=.64$).

Based on the results of the EFA, a single factor model with 18 items was tested on the second sample by using CFA with the maximum likelihood method. Results indicated that single factor PSES-T met goodness-of-fit criteria; $\chi^2/df = 1.6$, CFI=.95, TLI=.94, RMSEA=.06, and SRMR=.04.

Concurrent Validity

Due to previous theories (Bandura, 1997) and researches (Kruger, 1997; Pati & Kumar, 2010; Tschannen-Moran, & Gareis, 2007; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Özdemir, 2010) suggesting that self-efficacy may be related with social support, potential associations between PSES-T scores and perceived social support were examined (see Table 2).

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PSES-T</td>
<td>.187*</td>
<td>.185*</td>
<td>.383**</td>
<td>.350**</td>
<td>.286**</td>
<td>.303**</td>
</tr>
<tr>
<td>2. Central-office</td>
<td>.549**</td>
<td>.270**</td>
<td>.134</td>
<td>.314**</td>
<td>.211**</td>
<td></td>
</tr>
<tr>
<td>3. Superintendent</td>
<td>.320**</td>
<td>.268**</td>
<td>.308**</td>
<td>.285**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Teachers</td>
<td>.693**</td>
<td>.482**</td>
<td>.481**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. School staff</td>
<td>.493**</td>
<td>.418**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Parents</td>
<td>.688**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Students</td>
<td>-</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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

As expected, PSES-T scores had low positive correlations with social support from superintendent and central-office staff and moderate positive correlations with social support from staff, teachers, parents, and students.
A multiple regression test was conducted to determine whether or not demographic variables (years of administrative experience, years at school, socio-economic status of students, and school level) were significant predictors of PSES (see Table 3).

Table 3.

Multiple Regression: Prediction of Principal Sense of Efficacy

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of experience</td>
<td>.221</td>
<td>.002</td>
</tr>
<tr>
<td>Years at school</td>
<td>.202</td>
<td>.004</td>
</tr>
<tr>
<td>Socio-eco status</td>
<td>.101</td>
<td>.142</td>
</tr>
<tr>
<td>School level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographic variables explain approximately 12% of variance in PSES-T ($R^2=.12$, $F(6,22) = 5.02$, $p <.001$). PSES-T was significantly related to years of experience ($\beta=.22$, $p=.002$) and the socio-economic status of students ($\beta=.20$, $p < .01$). Years at school and school level were not significantly related with PSES-T.

Internal Consistency

Internal consistency estimates using Cronbach’s alpha suggested high reliabilities for the total scale PSES-T= .94. In addition, a t-test was conducted to determine the significance of difference between the average item scores of the upper and lower 27% groups and the correlation of the item total score was calculated. Results are given in Table 4.

Table 4.

Item Analysis Results

<table>
<thead>
<tr>
<th>Item</th>
<th>C.I.T.</th>
<th>Mean</th>
<th>t</th>
<th>Item</th>
<th>C.I.T.</th>
<th>Mean</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>upper</td>
<td></td>
<td></td>
<td></td>
<td>lower</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>%27</td>
<td></td>
<td></td>
<td></td>
<td>%27</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.61</td>
<td>7.6</td>
<td>5.2</td>
<td>10.3*</td>
<td>10</td>
<td>.64</td>
<td>8.6</td>
</tr>
<tr>
<td>2</td>
<td>.70</td>
<td>8.2</td>
<td>5.4</td>
<td>12.9*</td>
<td>11</td>
<td>.56</td>
<td>8.3</td>
</tr>
<tr>
<td>3</td>
<td>.58</td>
<td>8.2</td>
<td>5.9</td>
<td>10.9*</td>
<td>12</td>
<td>.78</td>
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<td>4</td>
<td>.58</td>
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<td>12.0*</td>
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<td>.59</td>
<td>8.3</td>
</tr>
<tr>
<td>5</td>
<td>.67</td>
<td>8.4</td>
<td>6.0</td>
<td>11.5*</td>
<td>14</td>
<td>.65</td>
<td>8.7</td>
</tr>
<tr>
<td>6</td>
<td>.75</td>
<td>8.4</td>
<td>6.0</td>
<td>12.5*</td>
<td>15</td>
<td>.53</td>
<td>8.3</td>
</tr>
<tr>
<td>7</td>
<td>.60</td>
<td>7.7</td>
<td>5.2</td>
<td>7.5*</td>
<td>16</td>
<td>.66</td>
<td>8.6</td>
</tr>
<tr>
<td>8</td>
<td>.51</td>
<td>7.8</td>
<td>5.0</td>
<td>8.0*</td>
<td>17</td>
<td>.71</td>
<td>8.1</td>
</tr>
<tr>
<td>9</td>
<td>.72</td>
<td>8.6</td>
<td>6.0</td>
<td>13.0*</td>
<td>18</td>
<td>.67</td>
<td>8.3</td>
</tr>
</tbody>
</table>

*p < .05  
<sup>1</sup>Corrected Item-Total Correlation
As seen in Table 4, for all items in the scale, item-total correlations vary between .51 and .78 and all items presented a significant difference at p<.05 within the lower and upper groups.

Discussion and Conclusion

The purpose of this study was to investigate the reliability and validity of a Turkish version of PSES among school principals. Primarily, the construct validity of the 3-factor PSES-T was investigated with CFA. Findings from CFA yielded an unacceptable fit to the data. To our knowledge, no other studies conducted CFA to test PSES’s construct validity. In the next stage, exploratory factor analysis was conducted in order to determine the structure of the PSES with another sample. Although principal component analysis gave similar results with Tschannen-Moran, Gareis (2004) and Nye (2008), a one-factor structure was accepted because the EFA yielded a unidimensional result and CFA did not support a three-factor model.

In keeping with Tschannen-Moran and Gareis’s (2007) findings that there was a high level of correlation between social support within school (staff, teachers, parents, and students) and principal self-efficacy ($r=0.42$, $p<0.01$), a medium level of correlation between social support from out of school (superintendent and central-office staff) and principal self-efficacy ($r=0.34$, $p<0.01$), the concurrent validity of the PSES was supported by low positive correlations with social support from the superintendent and central-office staff and moderate positive correlations with social support from staff, teachers, parents, and students. To provide further evidence for the validity of the PSES, the relationship between demographic variables and PSES was examined. Results showed that there were no significant relations between years at school, school level, and PSES. These findings are similar with the other research examining the potential associations of PSES with years at school (Costa-Hernandez, 2010; Tschannen-Moran & Gareis, 2004) and school level (Dimmock & Hattie, 1996; Santamaría, 2008). Contrary to the results of other research (Costa-Hernandez, 2010; Tschannen-Moran & Gareis, 2004; Tschannen-Moran & Gareis, 2007), but parallel with the theory, we found a significant relationship between years of experience (Santamaría, 2008; Dimmock & Hattie, 1996), the socio-economic status of students, and PSES. According to Bandura, an individual’s successful past experiences - namely mastery experiences - are the prominent factors that determine self-efficacy (Bandura, 1997).

The results of this study show that the total scale of PSES-T demonstrated good consistency (.94). To provide further evidence for the reliability of the PSES-T, a comparison was made between the average scores of the participants included within the upper and lower groups. Entire items were found to be significant at level $p < .05$. These findings provide evidence to support the reliability of a Turkish version of PSES.

In conclusion, the present study provided psychometric support for the Turkish version of the PSES. However, this study has some limitations. First, test-retest scores
were not conducted; thus, the stability of the PSES’s parameters and the consistency of participants’ responses could not be established. Second, we used single questions to measure participants’ perceived social support, but using a scale and measuring interpersonal social support indirectly would give more accurate results. Further research would examine the structure of the PSES with similar populations in other cultures.

References


Ayşe Negiş-Işık & Deniz Derinbay


Yönetici Öz-yeterlik Ölçeğinin Türkçe Adapasyonu: Geçerlik ve Güvenirlik Çalışması

Atıf:
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Özet


 Araştırmaın Amacı: Bu araştırmının amacı Yönetici Öz-yeterlik Ölçeğinin Türkçe versiyonunun psikometrik özelliklerinin test edilmesidir.

 Araştırmaın Yöntemi: Yönetici Öz-yeterlik Ölçeğinin (YÖÖ) Türk kültürine uyarlamasının yapıldığı bu çalışmada ölçeğin yapısı geçerliğini belirleme amacıyla açılamayı ve doğrulayıcı faktör analizleri yapılmış, her iki analiz için okul
Araştırmanın veri toplama araçlarını Tschannen-Moran ve Gareis (2004) tarafından geliştirilen Yönetici Öz-yeterlik Ölçeği ile birlikte, yöneticilerin aldığı kişiselarasi sosyal desteği ilişkin soruları ve katılımcıların yaş, cinsiyet, eğitim durumları, mesleki kademeler gibi bilgilere içeren kişisel bilgi formu oluşturulmaktadır. Yönetici öz-yeterlik ölçeği orijinal formu 18 maddeden ve 3 alt boyutu olan 9'lü likert tipi bir ölçektedir. Örneğin 9 ile 162 arasında puan alınmaktadır ve yüksek puanlar yüksek öz-yeterliği göstermektedir. Orijinal ölçeğin genelinin cronbach alpha 0.82 ile .89 arasında değerlendirildi. Araştırma kapsamında ayrıca yöneticilerin algıladığı sosyal destek, katılımcılara denetçilik soruları ve katılımcıların yaş kademeleri gibi bilgilerini içeren kișisel bilgi formu oluşturmaktadır. Yönetici öz-yeterlik ölçeğini ve bu faktörlerin toplam varyansın %70'ini açıkladığı görülmüştür. Ölçeğin okul içi destek yapan sube yetenekleri ise AMOS 16.00 ile analiz edilmiştir. **Araştırmanın Bulgular:** Analizden önce her iki örneklemın normal dağılım göstermediği ve çok değişkenli analizlere uygulama testi edilmiştir. Bu amaçla örneklemde çarpişıklık ve baştıklıklık katsayları ineçlenmiştir, bu değerler sırasıyla .35 ile -.107 ve -.26 ile -.15 arasında deşifte edilmiştir. Elde edilen değerler örneklemin faktör analizine uygulan olduğunu göstermektedir. Verilerin faktör analizine uygulanan ayrıca Kaiser-Meyer Olkin (KMO) değeri .88 ve Barlett küreselik testi $\chi^2 = 1207.0$ ($p < .001$) ile de desteklenmiştir. Araştırma kapsamında örneklem orijinal ölçeğin 3 faktörüli yapısını snamanak amacıyla doğrulayıcı faktör analizi yapılmıştır. Analiz sonucunda elde edilen değerler $(x^2 / df = 2.80, \text{CFI} = .873, \text{TLI} = .87, \text{RMSEA} = .100, \text{SRMR} = .064)$ ölçeğin Türkçe versiyonu için 3 faktörüli yapının iyi uyum göstermediğini ortaya koymaktadır. Bu sonuçlara dayalı olarak ölçeğin faktör yapısını belirlemek amacıyla açımlayıcı faktör analizi yapılmıştır. Yapılan analiz sonucunda ölçeğin öz değeri birden büyük 3 faktörden oluştuğu bu faktörlerin...
özdeğerlerinin sırasıyla 7.39, 1.46 ve 1.16 olduğu görülmüştür. İlk faktör toplam varyansın % 41’ini daha sonraki faktörlere ise sırasıyla %8 ve % 6.4’ünü açıklamaktadır. Öğe’nin öz değeri birden büyük üç faktörü olmasına karşın, ilk faktörden sonraki faktörlерin öz değerlerinde ciddi bir düştünün olması ve ikinci ve üçüncü faktörlерin toplam varyansa yaptığı kadının önemini düşk olduğu olduğu tek faktörü bir yapı gösterdiğiine kanıt teşkil etmekteydi (Çokluk, Şekercioğlu, Büyükoztürk, 2010). Sonuç olarak öge’nin tek faktörlü yapsının toplam varyansın %41’ini açıkladığı ve madde faktör yüklerinin .50-.74 arasında değiştiği görülmüştür. Açıklamalar faktör analizi sonuçlarına dayanarak 18 maddenin olup olmadığı tek faktörü model, maksimum olabilirlik yöntemi ile doyal olarak test edilmiştir. Analiz sonucunda elde edilen uyum içi değerleri (χ²/df= 1.6, CFI=.95, TLI=.94, RMSEA=.06, SRMR=.04) öge’nin tek faktörlü yapsını doğrulamaktadır.

Öğe’nin güvenirliğini belirlemek için cronbach alfa iç tutarlık katsayısı hesaplanmıştır ve .94 olduğu görülmüştür. Ayrıca her bir maddeye ait ortalamanın alt-üst %27’lik gruplarda farklılaşmış farklılaşmadığı t-testi ile sınıımsız ve bütün maddelerde ilişkin üst %27’lik dilimdeki bireyler ile alt %27’lik dilimdeki bireyler arasında anlamlı düzeyde (p<.05) farklılık olduğu görülmüştür.


Anahtar sözcükler: Yönetici öz-yeterlilik, öz-yeterlilik, geçerlilik, güvenirlik