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Development of Teacher Job Performance Scale and Determining Teachers' Job Performance Level*

Öğretmen İş Performansı Ölçeğinin Geliştirilmesi ve Öğretmenlerin İş Performansı Düzeyinin Belirlenmesi

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ABSTRACT: This study aims to develop a valid and reliable scale to measure teachers' self-reported job performance and use it for the first time on the target group. In line with this aim, the current study employed a single surveying model. The study sample consisted of three groups. There are 265 teachers in the first group; 509 teachers in the second and 1935 teachers in the last one. Exploratory factor analysis and confirmatory factor analysis were used to determine the factor structure of the teachers' job performance scale (TJPS). Cronbach's Alpha reliability coefficient and item statistics were also calculated. Results showed that the TJPS is a valid and reliable three-dimensional measure: task performance (16 items), contextual performance (9 items) and adaptive performance (12 items). On the other hand, teachers' performance level is "always" for task, adaptive and the overall scale and sometimes for contextual performance. Based on the findings, some suggestions were made.

Keywords: Teacher, job performance, scale development.

ÖZ: Bu araştırmanın amacı öğretmenlerin iş performansını öz-bildirim yöntemiyle ölçmede kullanılabilecek geçerli ve güvenilir bir ölçme aracı geliştirmek ve geliştirilen ölçeğin ilk uygulamasını hedef grup üzerinde yürütmektir. Bu amaç doğrultusunda, araştırmada tekil tarama yöntemi esas alınmıştır. Araştırma üç farklı çalışma grubu üzerinde yürütülmüştür. Birinci çalışma grubunda 265 öğretmen; ikinci çalışma grubunda 509 öğretmen ve üçüncü çalışma grubunda 1935 öğretmen yer almaktadır. Öğretmen iş performansı ölçeğinin yapı geçerliğini test etmek amacıyla açımlayıcı faktör analizi ve doğrulayıcı faktör analizi yürütülmüştür. Güvenirlik analizleri kapsamında ise Cronbach Alfa güvenirlik katsayısı ve madde istatistikleri hesaplanmıştır. Elde edilen bulgular ölçeğin geçerli ve güvenilir bir ölçme aracı olduğuna işaret etmektedir. Ölçek görev performansı (16 madde), bağlamsal performans (9 madde) ve uyumsal performans (12 madde) olmak üzere üç boyuttan oluşmaktadır. Ayrıca, elde edilen bulgular öğretmen iş performansının görev performansı, uyumsal performans ve ölçek genelinde "her zaman" bağlamsal performans boyutunda ise "ara sıra" düzeyinde olduğunu göstermektedir. Bulgular temelinde birtakım öneriler getirilmiştir.

Anahtar kelimeler: Öğretmen, iş performansı, ölçek geliştirme.

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The ability of organizations to continue their operations and achieve their goals depends largely on employee performance. Job performance is simply defined as all behaviors in which employees engage at work (Jex & Britt, 2008) or as measurable actions, behaviors and outputs directly engaged in or indirectly caused by employees to serve organizational objectives (Viswesvaran & Ones, 2000). In another definition Motowidlo (2003) states that job performance is the expected total value of behavioral episodes displayed by the employee at a given period. According to Jamal (2007) job performance can be defined as the extent to which an employee can carry out the tasks successfully using the organizational resources under regular conditions. As can be understood from the definitions, job performance can be conceptualized in terms of employee behavior or outcomes produced by the employee. However, in this study teachers' job performance is dealt with a behavioral perspective.

Motowidlo, Borman, and Schmit (1997) put forward some assumptions about job performance. These assumptions can briefly be summarized as follows:

- Job performance is behavioral which means that circumstances not controlled by the employee can be influential on it. In this sense, an approach based on only outcomes will not reflect the contribution to organizational objectives truly.
- Job performance is episodic which means that an employee can sometimes be engaged in activities that do not contribute to organizational objectives.
- Job performance is evaluative which means that behavioral episodes can display variance in terms of the extent of the contribution they provide for organizational objectives.
- Job performance is multi-dimensional.

As stated in the last assumption above job performance is multidimensional (Campbell, Mchenry, & Wise, 1990; McCloy, Campbell, & Cudeck, 1994) and they vary in the literature (Campbell et al., 1990; Carlos & Rodrigues, 2016; Griffin, Neal, & Parker, 2007; Koopmans, Bernaards, Hildebrandt, Vet, & Beek 2013; Pradhan & Jena, 2017; Ramawickrama, Opatha, & Pushpakumari, 2017; Robbins & Judge, 2012; Welbourne, Johnson, & Erez, 1998). However, this study is based on the teacher job performance framework (task performance, contextual performance and adaptive performance) developed by Bhat and Beri (2016). Thus, we will briefly explain these three performance dimensions respectively.

Task Performance

In the literature task performance is used interchangeably with the terms of role performance (Cohen & Liu, 2011; Johari & Yahya, 2009; Williams & Anderson, 1991; Zhu, 2013), role-based performance (Welbourne, Johnson, & Erez, 1998), task proficiency (Stout, Salas, & Carson, 1994) and technical skills (Wade & Parent, 2002). Despite these different conceptualizations, it refers to the same thing. Task performance is defined as fixed task outcomes that distinguish one profession from another (Witt, Kacmar, Carlson, & Zivnuska, 2002). Task performance is profession-specific because it excludes performance factors common to most professions (Scotter & Motowidlo, 1996). It is directly associated with the achievement of organizational objectives and refers to predetermined behaviors, the dimensions of which are clearly stated in job

descriptions (Allworth & Hesketh, 1999). It arises when employees use their technical skills and knowledge to perform a specific task (Scotter, Motowidlo, & Cross, 2000).

Contextual Performance

The second dimension of job performance is contextual performance. It is stated by Coleman and Borman (2000) that contextual performance includes behaviors implied in organizational citizenship (Organ, 1990), prosocial behaviors (Brief & Motowidlo, 1986), extra-role performance (Van Dyne & LePine, 1998). Contextual performance refers to behaviors that do not directly contribute to the technical essence but create and maintain the psychological, social and organizational settings in which task performance is prominent (Griffin, Neal, & Neale, 2000; Witt et al., 2002). We can talk about contextual performance, when employees help others complete a task, collaborate with their superiors, or make suggestions to improve organizational processes (Scotter et al., 2000). According to Robbins and Judge (2012), good employees are those who can perform the desired behaviors in both task and contextual performance.

Adaptive Performance

The last dimension of job performance is adaptive performance. The perception that organizations are facing more and more uncertainty and employee roles are becoming more dynamic and flexible increased the interest in modelling the performance competencies which are required to cope with these changes and uncertainty (Campbell, 2012). Because of fast-changing nature of organizational activities, adopting new skills and the ability to adapt to different situations have become substantial for organizations to obtain their objectives (Charbonnier-Voirin, Akremi, & Vandenberghe, 2010) and brought about the concept of adaptive performance (Allworth & Hesketh, 1999; Pulakos, et al., 2002). In literature, adaptive performance is interchangeably used with terms such as adaptive ability (Ployhart & Bliese, 2006; Pulakos, Dorsey, & White, 2006), adaptation (Jundt, Shoss, & Huang, 2015), adaptive expertise (Wetzel, Arment, & Reed, 2015), adaptive transfer (Kluge, Sauer, Burkolter, & Ritzmann, 2010) and performance adaptation (Baard, Rench, & Kozlowski, 2013). However, adaptive performance is defined as the ability of employees to change their behavior to respond to demands arising from new situations (Charbonnier-Voirin & Roussel, 2012; Shoss, Witt, & Vera, 2011) or as the extent to which they can adapt to changes (in the organizational system as a whole or in the definition of its role) (Ramawickrama et al., 2017). According to Allworth and Hesketh (1999), adaptive performance can be defined, in broad terms, as the ability to cope with change and transfer learning from one task to another in the face of changing job demands.

In today's competitive environment, organizations need employees who can perform well in all three dimensions mentioned above. Educational organizations are especially in need of such employees. This makes teachers' job performance critical because they are the most important stakeholders of educational organizations. In this context, the next section deals with teacher job performance in particular.

Teachers' Job Performance

Most developed countries allocate a significant portion of their national budget to education because it plays a vital role in social development (Fadeyi, Sofoluwe, & Gbadeyan, 2015). The success of an educational system depends largely on the performance of teachers, who can be considered as the backbone of the system (Amin, Shah, Ayaz, & Atta, 2013; Hanif, 2004; Khan, Shah, Khan, & Gul, 2012).

In broader terms, teachers' job performance is defined as their contribution to the achievement of educational goals and objectives (Özdemir & Gören, 2017; Özdemir & Yirmibeş, 2016) while in some studies it is limited to teaching behavior (Bashir, Alias, Saleh, & Halizah, 2017; Okeniyi, 1995 cited in Amin et al., 2013). However, teachers' job performance applies not only to the classroom or school, but to all settings where students are present (Shaikh, Saad, & Bhutto, 2012). So, teachers' job performance can be regarded as multidimensional (Adeyemi, 2008; Ali & Haider, 2017; Amin et al., 2013; Demir, 2008; Hanif & Pervez, 2004; Mehmood, Qasim, & Azam, 2013; Yusoff, Ali, & Khan, 2014). These dimensions are preparation for the lesson, instruction, student evaluation, commitment, extracurricular activities, effective monitoring and inspection, effective leadership, motivation and discipline (Adeyemi, 2008); instructional, professional and personal qualities (Ali & Haider, 2017); contextual and task performance (Yusoff, Ali, & Khan, 2014); classroom management, considering individual differences among students, using motivational tools continuously, teaching style and methods, finding solutions to students' problems and guidance (Mehmood, Qasim, & Azam, 2013). However, this study employed the three-dimensional (task performance, contextual performance and adaptive performance) teacher job performance approach proposed by Bhat and Beri (2016).

Teachers are expected to carry out effective teaching, satisfy the students with his/her teaching quality and style, manage the time effectively in the classroom, discipline the class, carry out the tasks assigned to them by school administrators, motivate the students, be punctual and orderly and assure the students' academic achievement. Additionally, teachers are required to build positive relationships with the parents and their colleagues since these relationships have a direct or indirect effect on teachers' job performance. An effective teacher should always update himself/herself and adopt new skills (Hanif, 2004). On the other hand, the ones who go beyond their roles are the most desirable employees for organizations. Education organizations cannot be excluded in this sense. Policymakers introduce some reform initiatives aiming at a facilitating learning and school atmosphere. The ultimate aim of all these initiatives as mentioned above is to guarantee teachers to display extra-role behaviors (Duyar, Ras, & Pearson, 2015). According to OECD (2005), role expectations from teachers are much more comprehensive today. In individual student level these expectations are initiating and managing learning processes, responding to students' learning needs effectively, evaluating student learning; in classroom level instructing in multicultural classrooms, integrating students with special needs to the learning process, a cross-curricular focus. As for the school level, these expectations are teamwork, evaluation, and strategic planning, using educational technologies, administration and shared leadership. Lastly, in parent and society level providing professional guidance and creating partnerships for learning. On the other hand, according to Collie and Martin (2016), one of the distinguishing features of the teaching profession is that it requires a constant adaptation to daily innovations, change, and uncertainty. Teachers have to

apply to various resources to respond to students' needs during the instruction. They also have to manage his emotions and adapt to unexpected situations in terms of classroom management. Effective collaboration with other shareholders is a must for teachers in case of changes in curriculum and regulations. When appointed to a new school or classroom, they have to communicate with their new colleagues and adapt to the priorities of his new school and its administration. Most of the schools change their timetable very often and they do this without notice. Teachers have to engage in continuous professional development and teach new knowledge. The changes in educational policies are another factor that requires the adaptation of teachers. Shortly, it can be asserted that teachers are required not only to carry out their tasks effectively but also to go beyond the job definitions. Additionally, they need to show a high level of adaptation to different and changing situations.

Since performance of teachers is extremely important for the effectiveness of the system, the studies on teachers' job performance in literature is abundant (Adejumobi & Ojikutu, 2013; Adayemi, 2008; Akman, 2018; Akyüz, 2012; Akyüz, 2013; Alkış & Güngörmez, 2015; Altaş & Çekmecelioğlu, 2015; Argon, Sezgin-Nartgün, & Göksoy, 2013; Bakker & Bal, 2010; Balkar, 2015; Büyükgöze & Özdemir, 2017; Chamundeswari, 2013; Cerit, 2012, 2015; Çöl, 2008; Dilekçi & Sezgin-Nartgün, 2020; Erdem, Gökmen, & Türen, 2016; Hanif & Pervez, 2004; Hanif, Tariq, & Nadeem, 2011; Hatipoğlu & Kavas, 2016; Kalay, 2016; Koç, Yazıcıoğlu, & Hatipoğlu, 2009; Korkmaz, 2005; Özdemir, 2017; Özdemir & Gören, 2017; Özdemir & Yirmibeş, 2016; Shalmani & Praveena, 2013; Shen, Benson, & Huang, 2014; Töre, 2018; Usop, Askandar, Langguyuan-Kadtong, & Usop, 2013; Yazıcıoğlu, 2010). However, the studies especially in national literature use narrow-scoped scales that address job performance as a unidimensional phenomenon (Cerit, 2012, 2015; Çöl, 2008; Şehitoğlu, 2010). The aim of this study was, therefore, to develop a more comprehensive scale to fill that gap. We believe that the scale will help us to identify strong and weak (individual and organizational) aspects of teacher performance and obtain findings that can be used to increase the effectiveness and quality of education (Hanif & Pervez, 2004). It will also allow us to determine teachers' job performance levels in a holistic manner and identify the demographics and other organizational variables that affect performance, which will help us to plan the in-service trainings offered to teachers accordingly.

Purpose of the Study

The purpose of this study is to develop a valid and reliable scale to measure teachers' job performance and determine teachers' job performance level employing the scale.

Method

Research Design

This is a scale development study but on the other hand it aims to determine teachers' job performance level. So, a single surveying model was used. Single surveying models allow us to focus on a single variable and examine its state at a given moment or its change over a given period (Şimsek, 2012).

Participants

The study participants consisted of three groups. The first group consisted of 265 teachers. Exploratory factor analysis (EFA) and reliability analyses were conducted on their data. Of the first group, 129 (51.3%) were women, 71 (26.8%) were primary school teachers, 84 (31.7%) were secondary school teachers and 110 (41.5%) were high school teachers. 58 (21.9%) had 0-5 years of work experience, 48 (18.1%) had 6-10 years of work experience, 64 (24.2%) had 11-15 years of work experience, 45 (17%) had 16-20 years of work experience and 50 (18.9%) had ≥21 years of work experience.

The second group consisted of 509 teachers. A confirmatory factor analysis (CFA) was performed on their data. Of the second group, 280 (55%) were women, 138 (27.1%) were primary school teachers, 152 (29.9%) were secondary school teachers and 219 (43%) were high school teachers. 161 (31.6%) had 0-5 years of work experience, 112 (22%) had 6-10 years of work experience, 75 (14.7%) had 11-15 years of work experience, 71 (13.9%) had 16-20 years of work experience and 90 (17.7%) had ≥ 21 years of work experience.

The third group consisted of 1935 teachers. 896 (46.3%) were women, 669 (34.6%) were primary school teachers, 661 (34.1%) were secondary school teachers and 605 (31.3%) were high school teachers. 462 (23.9%) had 0-5 years of work experience, 440 (22.7%) had 6-10 years of work experience, 330 (17.1%) had 11-15 years of work experience, 337 (17.4%) had 16-20 years of work experience and 366 (18.9%) had ≥21 years of work experience.

Data Collection

The scale that was used in this study were reviewed and approved by University of Bolu Abant İzzet Baysal Human Research Ethical Committee at 2018/06 meeting held on 9th of July, 2018. The data collection was carried out with the permission of Sakarya Provincial National Education Directorate (No: 29065503-44-E.17092559; Date: 21.09.2018) and the confirmation of Sakarya Governor's Office. The participation was voluntary.

This study employed online data collection procedure. With the advancement of technology online data collection has become a common method in social sciences (Akbulut, 2015; Avcıoğlu, 2014; Büyüköztürk, 2005; Çakıroğlu, 2008; Kılınç & Fırat, 2017; Loomis & Paterson, 2018; Payne & Barnfather, 2012; Stanton, 1998; Stanton & Rogelberg, 2001) because it has plenty of advantages (Çakıroğlu, 2008; Karakulakoğlu, 2014; Kılınç & Fırat, 2017; Loomis & Paterson, 2018). By employing an online method in data collection this study exploited these advantages. The scale items were prepared on Google Forms. An electronic link was sent to schools and school administrators sent this link to teachers.

Scale Development Process and Generating a Pool of Candidate Items

The scale development steps proposed by De Vellis (2017) were followed. The first step involves the determination of the behavior to be measured, which is teachers' self-reported job performance. The second step is the generation of a pool of candidate items. To this end, the literature was reviewed in detail, and it was determined that Koopmans et al. (2013) proposed the most comprehensive framework for job performance. The item pool was based on their framework and the indicators suggested

by them. Some other scales were also used to widen the item pool (Bhat & Beri, 2016; Carlos & Rodrigues, 2016; Charbonnier-Voirin & Roussel, 2012; Lynch, Eisenberger, & Armeli, 1999; Pradhan & Jena, 2017; Pulakos, Arad, Donovan, & Plamondon 2000; Raza, 2010; Yusoff et al., 2014). Face-to-face interviews were also conducted with four teachers to verify the item pool. They were asked four open-ended questions and asked to give examples of behaviors regarding the dimensions of job performance. Those examples were also included in the item pool. 85 candidate items were prepared. Based on the first assessment performed together with field experts, ten items measuring similar behaviors were discarded. Thus, the first 75-item draft scale was developed.

The measurement format was determined after generating the item pool. It was decided that the scale would have a 5-point Likert type format ranging from Never to Always (1: Never 2: Rarely 3: Occasionally, 4: Often, 5: Always).

The next step involved determining the content validity of the candidate items and consulting experts to revise them. 13 experts were consulted, and the content validity ratios of the items were calculated based on their ratings of the items using the formula suggested by Lawshe (1975). 25 items with a content validity ratio of less than 0.54 were discarded. Due to the potential challenges of addressing the issue quantitatively (Doğan & Kılıç, 2014), the 40-item "counter-productive job behavior" factor was excluded from the scope of the study in line with expert opinion and as stated in the literature. Again, based on expert opinion, 10 items were added to the scale. Consequently, the final number of items was 45.

Lastly, the 45-item draft was presented to a measurement and evaluation expert to check its face validity before validity and reliability analysis. Based on expert feedback, the items were revised, and the scale was finalized for validity and reliability analysis.

Results

Exploratory Factor Analysis

The steps and criteria proposed by Pallant (2007) were followed for EFA. In the first step, the sample size and correlation matrix were analyzed to determine whether the data set was suitable for factor analysis. According to Pallant, a sample of over 150 participants and at least 5 participants for each scale item are ideal. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy is expected to be >.60 and Bartlett's test of sphericity to be statistically significant ($p<.00$). If the data set is suitable for factor analysis, the second step involves determining the minimum number of factors that best represent the relationship between variables. The principal component analysis is the most widely used method. Kaiser's criterion and scree test were used to determine the number of factors. Kaiser's criterion refers to the consideration of factors with an eigenvalue of 1.00 or higher. The Scree test seeks factors above the point where the line forms an elbow. The final step of factor analysis is factor rotation. Varimax rotation was used to generate orthogonal factors.

The first analysis after checking the suitability of the data set for EFA yielded a 10-dimensional structure with an eigenvalue greater than 1. According to the scree plot, there was a significant rupture after the third dimension. Besides, according to the 5% rule, the eigenvalue of only three factors was greater than 5% of the total eigenvalue (Huck, 2012). Therefore, the number of factors was limited to three, and the analysis

was repeated. At this stage, items 5, 6, 43, 45, 29, 32, 7 and 30 with low or overlapping factor loadings were excluded from EFA one by one, and the process was repeated. Consequently, 37 items loaded on three factors, and the factor structure satisfied the cut off values in literature. The results are presented below.

The Kaiser-Meyer-Olkin (KMO) was .90, for which Bartlett's test of sphericity was significant, indicating that the data set was suitable for factor analysis (Huck, 2012; Pallant, 2007; Tabachnick & Fidell, 2013). On the other hand, most of the correlations in the matrix were above *r>.30* which is another indication for the factorability of the data set. Then, the factor structure of the TJPS was determined.

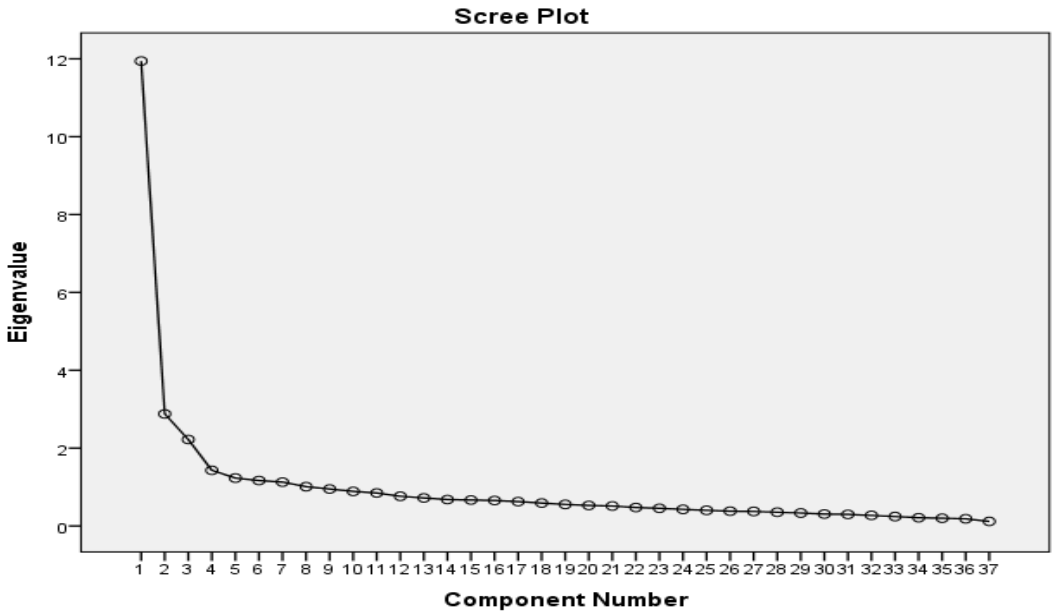
Table 1

Eigenvalues of Factors and Explained Variance

Factor	Eigenvalues	Variance %	Cumulative %
1	11.94	32.28	32.28
2	2.88	7.78	40.06
3	2.22	6.00	46.06

Table 1 shows eigenvalues and the proportion of variance explained by the factors of the TJPS. The factors had eigenvalues of 11.94, 2.88 and 2.22, respectively. The factors 1, 2 and 3 accounted for 32.28%, 7.78% and 6.00% of the total variance, respectively. They all accounted for 46.06% of the total variance, which was adequate (Çokluk, Şekercioğlu, & Büyüköztürk, 2018). The scree plot (Graph 1) clearly shows a significant rupture after the third factor indicating a three-factor structure.

Figure 1. Scree Plot of Teacher Job Performance Scale



In the next step, the factors were rotated using the varimax method to determine the factor structure of the TJPS. Table 2 below presents the findings of these analyses.

The communalities ranged from .32 (Item 4) to .61 (Item 24) and factor loadings from .49 (Item 4) to .74 (Item 26). Moreover, the differences between factor loadings were >.10, suggesting that the items satisfied the cut off values in literature (Büyüköztürk, 2011; Tabachnick & Fidell, 2013).

Table 2

Communalities and Factor Loadings of Scale Items

	Pre-Rotation		Post Rotation	
Item No	Communalities	Factor 1	Factor 2	Factor 3
1	.35	.55		
2	.45	.64		
3	.41	.63		
4	.32	.49		
8	.35	.50		
9	.43	.52		
10	.38	.53		
11	.43	.64		
12	.45	.58		
13	.45	.64		
14	.36	.53		
15	.38	.57		
16	.44	.63		
17	.47	.66		
18	.35	.53		
19	.38	.55		
20	.60		.53	
21	.52		.53	
22	.56		.64	
23	.51		.59	
24	.61		.66	
25	.59		.73	
26	.58		.74	
27	.37		.52	
28	.55		.73	
31	.42			.51
33	.34			.55
34	.51			.69
35	.49			.58

36	.57		.71
37	.55		.69
38	.43		.59
39	.53		.69
40	.53		.59
41	.46		.62
42	.47		.65
44	.49		.59

Reliability Analysis

In this section, findings regarding the reliability of the scale are presented. In this sense, Cronbach's Alpha coefficients, differences between upper and lower 27% groups' mean scores, corrected item-total correlations and correlation coefficients among factors were calculated. Table 3 below presents Cronbach's Alpha coefficients of factors and the scale.

Table 3

Cronbach's Alpha Coefficients

Factors	N. of Items	$\bar{X}$	α
Factor 1	16	4.53	.89
Factor 2	9	3.93	.88
Factor 3	12	4.26	.89
Total Scale	37	4.30	.94

As can be seen in Table 3, Cronbach's alpha reliability coefficients of factors 1, 2 and 3, and the total scale are .89, .88, .89 and .94, respectively. These findings are satisfactory considering the cut off value in the literature (Büyüköztürk, 2011; Singh, 2007).

Table 4

Communalities and Factor Loadings of Scale Items

Item No	Group	n	$\bar{X}$	ss	t	*p*	CITC
1	Lower 27%	71	4.26	.48	-9.87**	.00	.47
	Upper 27%	71	4.91	.28			
2	Lower 27%	71	4.32	.55	-8.34**	.00	.47
	Upper 27%	71	4.92	.26			
3	Lower 27%	71	4.01	.77	-7.38**	.00	.42
	Upper 27%	71	4.78	.44			
4	Lower 27%	71	4.15	.82	-7.38**	.00	.47

	Upper 27%	71	4.91	.28			
8	Lower 27%	71	3.61	.74	-9.44**	.00	.50
	Upper 27%	71	4.67	.58			
9	Lower 27%	71	4.04	.69	-11.11**	.00	.59
	Upper 27%	71	4.97	.17			
10	Lower 27%	71	3.97	.56	-11.01**	.00	.54
	Upper 27%	71	4.84	.36			
11	Lower 27%	71	4.32	.60	-7.35**	.00	.45
	Upper 27%	71	4.94	.37			
12	Lower 27%	71	4.00	.76	-9.57**	.00	.54
	Upper 27%	71	4.91	.28			
13	Lower 27%	71	4.15	.73	-6.61**	.00	.46
	Upper 27%	71	4.81	.42			
14	Lower 27%	71	4.21	.61	-8.58**	.00	.49
	Upper 27%	71	4.90	.30			
15	Lower 27%	71	4.22	.60	-7.11**	.00	.45
	Upper 27%	71	4.95	.20			
16	Lower 27%	71	4.15	.75	-8.24**	.00	.50
	Upper 27%	71	4.92	.26			
17	Lower 27%	71	3.38	.77	-8.08**	.00	.42
	Upper 27%	71	4.76	.49			
18	Lower 27%	71	4.04	.57	-9.18**	.00	.49
	Upper 27%	71	4.80	.40			
19	Lower 27%	71	4.11	.43	-12.15**	.00	.51
	Upper 27%	71	4.80	.32			
20	Lower 27%	71	3.19	.89	-11.75**	.00	.60
	Upper 27%	71	4.67	.58			
21	Lower 27%	71	3.60	.84	-12.07**	.00	.66
	Upper 27%	71	4.88	.32			
22	Lower 27%	71	3.43	.73	-12.85**	.00	.64
	Upper 27%	71	4.77	.48			
23	Lower 27%	71	3.46	.89	-11.89**	.00	.63
	Upper 27%	71	4.84	.40			
24	Lower 27%	71	3.35	.85	-14.53**	.00	.69
	Upper 27%	71	4.90	.30			
25	Lower 27%	71	3.33	.81	-13.08**	.00	.57
	Upper 27%	71	4.76	.43			

26	Lower 27%	71	2.95	.85	-10.53**	.00	.53
	Upper 27%	71	4.42	.80			
27	Lower 27%	71	3.21	.81	-10.46**	.00	.49
	Upper 27%	71	4.54	.71			
28	Lower 27%	71	2.26	1.00	-9.79**	.00	.49
	Upper 27%	71	4.07	.19			
31	Lower 27%	71	4.28	.64	-8.84**	.00	.56
	Upper 27%	71	4.97	.17			
33	Lower 27%	71	3.26	.84	-7.39**	.00	.44
	Upper 27%	71	4.32	.86			
34	Lower 27%	71	3.77	.51	-10.17**	.00	.51
	Upper 27%	71	4.71	.59			
35	Lower 27%	71	3.73	.74	-10.16**	.00	.51
	Upper 27%	71	4.77	.45			
36	Lower 27%	71	3.91	.65	-11.92**	.00	.59
	Upper 27%	71	4.91	.28			
37	Lower 27%	71	3.88	.73	-9.71**	.00	.56
	Upper 27%	71	4.84	.40			
38	Lower 27%	71	4.12	.75	-8.96**	.00	.51
	Upper 27%	71	4.95	.20			
39	Lower 27%	71	3.78	.77	-10.22**	.00	.55
	Upper 27%	71	4.84	.40			
40	Lower 27%	71	3.74	.58	-13.54**	.00	.66
	Upper 27%	71	4.84	.36			
41	Lower 27%	71	3.64	.61	11.51**	.00	.55
	Upper 27%	71	4.73	.51			
42	Lower 27%	71	3.59	.79	8.28**	.00	.51
	Upper 27%	71	4.57	.62			
44	Lower 27%	71	3.57	.75	10.96**	.00	.57
	Upper 27%	71	4.73	.48			

In Table 4, corrected item-total correlations and the differences between "upper and lower 27% groups' mean scores" are presented. As can be seen in Table, the corrected item-total correlations ranged from .42 (Item 3-17) to .69 (Item 24). The differences between the upper and lower 27% groups' mean scores were significant for all items, suggesting that the items had high internal consistency, exemplified similar behavior and distinguished individuals well (Büyüköztürk, 2011; Field, 2009).

Table 5

Correlations among Factors

Factors	Factor 1	Factor 1	Factor 3	Total Scale
Factor 1	1			
Factor 2	.56**	1		
Factor 3	.55**	.60**	1	
Total Scale	.83**	.86**	.85**	1

In Table 5, Pearson correlation coefficients among factors and overall scale are presented. As can be seen in Table, the correlation coefficients ranged from *r=.55* (Factor 1 and 3) to *r=.86* (Scale and Factor 2). These findings indicate the presence of high correlations between the scale and its dimensions (Russo, 2004) and the internal consistency of the scale.

Confirmatory Factor Analysis Results

The factor structure revealed by EFA was tested using CFA (Brown, 2015; Worthington & Whittaker, 2006), which was performed on 509 teachers. The subject to item ratio shows that the study group was more than adequate (Pallant, 2007) and considering only sample size, it was "very good" (Comrey & Lee, 1992).

CFA was performed on a different study group, and therefore, Cronbach's Alpha reliability coefficients were calculated again. The factors 1, 2 and 3 and the total scale had a Cronbach's Alpha of .88; .88; .88 and .94 respectively which indicates that the data set met the reliability criterion (Singh, 2007; Büyüköztürk, 2011).

Table 6

Item Statistics of TJPS

Factor	Item	λ	R^2	Error variance	t
Factor 1	1	.53	.28	.72	12.19**
	2	.60	.36	.64	14.34**
	3	.58	.34	.66	13.75**
	4	.49	.24	.76	11.32**
	8	.57	.33	.67	13.56**
	9	.47	.22	.78	10.72**
	10	.60	.36	.64	14.36**
	11	.56	.32	.68	13.27**
	12	.51	.26	.74	11.68**
	13	.55	.30	.70	12.74**
	14	.55	.30	.70	12.86**
	15	.49	.24	.76	11.28**
	16	.53	.28	.72	12.32**

	17	.71	.50	.50	17.65**
	18	.65	.43	.57	15.90**
	19	.62	.39	.61	14.91**
	20	.71	.51	.49	17.79**
	21	.65	.42	.58	15.61**
	22	.77	.59	.41	19.74**
	23	.64	.42	.58	15.55**
Factor 2	24	.80	.64	.36	20.87**
	25	.59	.35	.65	13.86**
	26	.63	.39	.61	14.97**
	27	.64	.41	.59	15.31**
	28	.58	.34	.66	13.63**
	31	.60	.36	.64	14.34**
	33	.51	.26	.74	11.59**
	34	.69	.48	.52	17.03**
	35	.55	.31	.69	12.90**
	36	.65	.43	.57	15.83**
	37	.68	.46	.54	16.73**
Factor 3	38	.56	.31	.69	13.06**
	39	.59	.35	.65	14.04**
	40	.70	.48	.52	17.23**
	41	.66	.44	.56	16.19**
	42	.67	.46	.54	16.54**
	44	.64	.42	.58	15.56**

** $p < .01$

In Table 6, factor loadings, t values (the level of statistical significance) and multiple correlation square values (R^2) (an indicator of validity) of TJPS items are presented. As can be seen in Table, factor loadings ranged from .47 (Item 9) to .80 (Item 24) while R^2 values ranged from .22 (Item 9) to .64 (Item 24). t values were significant at $p<.01$ and greater than 2.56 which indicates that there was no statistically problematic item in CFA item statistics (Kline, 2009; Ullman, 2013).

In the next step, goodness-of-fit indices were calculated. Goodness-of-fit indices in the first analysis did not fully meet the criteria sought in the literature. To improve the model-fit, covariances were established between error terms where MI>10.00 (Byrne, 2016). Table 7 presents the goodness of fit indices.

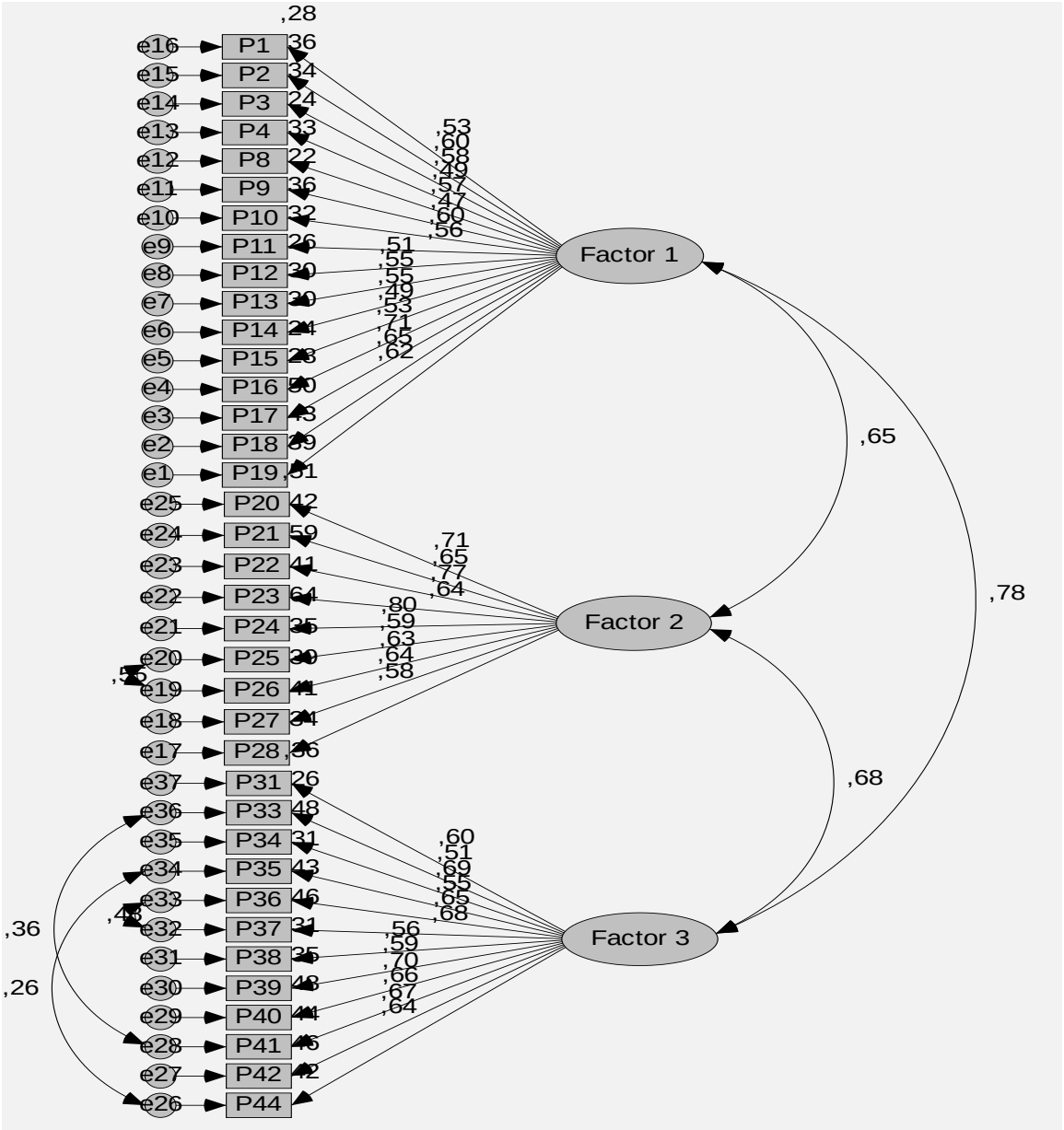
Table 7

The Goodness of Fit Indices

Modification	x^2 / df	*p*	RMSEA	CFI	GFI	AGFI	NNFI	NFI	IFI	RMR	SRMR
Pre	2.88	.00	.06	.85	.83	.81	.84	.79	.85	.03	.06
Post	2.19	.00	.05	.90	.87	.90	.90	.84	.90	.03	.05

As can be seen in Table 7, after modification x^2/df, RMSEA, CFI and SRMR met the criteria sought in the literature (Brown, 2015; Kline, 2009) and confirmed the validity of the scale structure. Graph 2 below shows the path diagram of the TJPS.

Figure 2. Path Diagram of Teacher Job Performance Scale



The results indicate that TJPS is a valid and reliable measure. The factors 1, 2 and 3 were named task performance (16 items), contextual performance (9 items) and adaptive performance (12 items), respectively.

Participants' Job Performance Level

Table 8 shows the descriptive statistics of the TJPS. The task performance, contextual performance, and adaptive performance dimensions and the total scale had an arithmetic mean ($\bar{x}$) 4.53, 3.97, 4.30 and 4.32, respectively. The arithmetic means can be interpreted as "always" for the task performance and adaptive performance and the total scale while it can be interpreted as "sometimes" for the contextual performance.

Table 8

Descriptive Statistics of Teacher Job Performance Scale

Dimension / Scale	*N*	$\bar{X}$	*ss*
Task performance	1935	4.53	.36
Contextual performance	1935	3.97	.62
Adaptive performance	1935	4.30	.46
Job performance	1935	4.32	.39

Conclusions and Discussion

This study aimed to develop a valid and reliable measure of teachers' self-reported job performance and use it for the first time on a target group. The TJPS was based on the framework proposed by Koopmans et al. (2013). Items were prepared based on the assumption that the scale would consist of four dimensions. However, the 40-item "counter-productive job behavior" dimension was excluded in line with expert opinion and as recommended in the literature. Therefore, three dimensions which are task, contextual and adaptive performance were included in item pool before statistical analyses. There were 45 candidate items in the first draft of the scale. EFA and CFA yielded a three-factor structure. There are 16 items in task performance, 9 items in contextual performance and 12 items in adaptive performance which means that the scale consisted of 37 items. On the other hand, reliability and item analyses yielded satisfactory results. In other words, they showed that TJPS is a valid and reliable measure of teachers' self-reported job performance.

After validity and reliability testing, the TJPS was applied to 1935 teachers in Sakarya. The results showed that participants had an "always" level of task performance. This finding is consistent with the literature (Amin et al., 2013; Bakker & Bal, 2010; Bashir et al., 2017; Cerit, 2012, 2015; Chughtai, 2008; Cohen & Liu, 2011; Duyar et al., 2015; Guan et al., 2014; Kalay, 2016; Lauermann, 2013; Lev & Koslowsky, 2012; Shen, Benson, & Huang, 2014; Torun & Okumuş, 2016; Zlatković, Stojiljković, Djigić, & Todorović, 2012). On the other hand, participants' contextual performance level was found to be "sometimes" which is also consistent with previous findings (Amin et al., 2013; Bakker & Bal, 2010; Bashir et al., 2017; Busso, 2003; Castilho, 2015; Cohen & Liu, 2011; Delgado-Rodríguez et al., 2018; Duyar et al., 2015; Ekinci, 2018; Findley, Giles, & Mossholder, 2000; Hamidizadeh, Baramond, & Latifi, 2012; Lev & Koslowsky, 2012; Shen et al., 2014; Somech & Drach-Zahavy, 2000; Torun & Okumuş, 2016). Additionally, participants' adaptive performance level was "always". Studies on educational organizations have reported similar findings (Bashir et al., 2017; Collie & Martin, 2017; Dilekçi & Sezgin Nartgün, 2019). Lastly, participants' job performance level was "always". Literature has conflicting findings on teachers' job

performance level. While some studies have reported similar findings (Akman, 2018; Alkış & Güngörmez, 2015; Altaş & Çekmecelioğlu, 2015; Bakker & Bal, 2010; Büyükgöze & Özdemir, 2017; Hanif, 2004; Koç, Yazıcıoğlu, & Hatipoğlu, 2009; Özdemir & Gören, 2017; Özdemir & Yirmibeş, 2016; Raza, 2010; Shaffril & Uli, 2010; Shalmani & Praveena, 2013; Töre, 2018; Usop, Askandar, Langguyuan-Kadtong, & Usop, 2013; Yazıcıoğlu, 2010) while some others have reported lower teacher job performance (Adeyemi, 2011; Arthi & Sumathi, 2016; Shaikh, 2015; Shaikh et al., 2012). However, those studies were conducted in countries with limited opportunities such as Nigeria and Pakistan, and teachers' performance was evaluated by school principals, which might explain low job performance results.

Limitations and Future Research

The applicability of the TJPS is limited to the cultural context of Turkey. It is, therefore, recommended that the TJPS be adapted to different cultures. On the other hand, findings on the level of teachers' job performance are limited to Sakarya province. In this sense, further studies can be carried out on different samples. Being a valid and reliable scale, TJPS can be used to compare job performance level of teachers based on demographics.

Statement of Responsibility

İbrahim Limon; conceptualization, methodology, validation, formal analysis, investigation, resources, data curation, writing - original draft, writing - review & editing, visualization, supervision, project administration Şenay Sezgin Nartgün; conceptualization, methodology, validation, writing - review & editing, supervision, project administration.

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