Developing a Validated Instrument to Measure Teachers' Job Performance: Analyzing the Role of Background Variables

Akhtar Ali*
Syed Zubair Haider**

Abstract

The present study creates and validates a brief instrument to measure teachers' job performance in schools and then establishing the effect of background variables (gender, location, and job status) on the performance. The statements of this scale were developed with the experts' suggestions. The current research was accomplished in two studies. In Study 1, Teacher's Job Performance Scale consisted of 24-items was developed by using an empirical approach. In exploratory factor analysis (EFA) with a principal component method (PCM) and varimax rotation, 3-factors were emerged namely Instructional Qualities, Professional Qualities and Personal Qualities. While in second study, psychometric properties of newly developed tool were determined. The results of the confirmatory factor analysis (CFA) also verified 3-factors structure in the developed scale. Internal consistency reliability and construct validity were also satisfactory for this scale. The results of both studies make available preliminary support that TJPS demonstrates tremendous psychometric properties. Therefore, it could be considered as a reliable and valid heads' ratings instrument for assessing the job performance of teachers. The overall results revealed a significant difference between male/female and permanent/contractual teachers regarding performance. However, on the basis of heads' ratings, the performance of teachers from urban and rural areas did not differ significantly.

Keywords: Teacher performance, job performance, validation

Introduction

The teacher is an essential element of all educational systems. He has to perform numerous tasks such as a researcher, curriculum developer, team member or leader, professional and being an analyst (Richards and Lockhart, 1996). Teachers are

* Dean Faculty of Education/ Chairman, Department of Education, The Islamia University of Bahawalpur, Pakistan
** Assistant Professor, Department of Educational Training, The Islamia University of Bahawalpur, R.Y.Khan Campus, Pakistan. Tel: +92-332-9601095. E-mail: zubairiub@hotmail.com

respected by the community as they considered educated and well-informed individuals about various subjects of a school. A teaching institution without a teacher is much the same as a body without the spirit, a skeleton without blood and flesh, and a shadow without the stuff. We may put any effort to obtain our goals, arrangements, programs, curricula, gear and managerial structure; however, this is just the teacher who put life into the skeleton (Aziz, 2012). A capable teacher will dependably look for the future opportunity, at the accomplishment of educational objectives. A capable instructor will be more ready to make a viable learning environment and to deal with his/her class so that the excellence of students will constantly be at the maximum level. Baldoni (2005) accepted that if the teaching-learning process in a school is handled and run by capable teachers, it is believed to be normal and will produce high caliber students. The role of teacher is not only the provision of knowledge or skills to his/her students, but they also have an important responsibility of moderating the teaching-learning process and learning environment (Kayisoglu, 2015).

In line with other sectors, the education sector is also dependent on the good performance of its individuals as the quality of an educational process is affected by employees' work performance. This is also regarded as an output of a task, and it has a strong association with customer satisfaction, deliberate goals of an organization and monetary involvement. Ghasemi and Keshavarzi (2014) define performance as a set of attitudes related to work which a person performs or act. As'ad (1995) found that performance or work performance is a condition of accomplishment and achievement attained by an individual on the workplace. Armstrong (2007) argued that performance is a conversion of beliefs to accomplishments, not only the way to attain the outcomes, but it is also the effect that has extracted from intellectual and bodily actions and can be regarded away from the results. The work of Campbell, McCloy, Oppler, and Sager (1993) was considered as a valuable work related to the performance. In psychological outlooks, they define performance as a person level factor and regarded it something related to a single individual and something a single individual performs.

Job performance or work performance is one of most important component of organizational behavior research that has been regarded as an essential indicator of effective organization. Thus the success of an institution is based on the good performance of its employees (Colquitt, LePine, & Wesson, 2010). The job performance is also considered as an extent to which an individual reaches or obtains a job-related quality or quantity. Suliman and Al Kathairi (2012) expressed that the term job performance normally refers to whether an individual does his work properly, by evaluating generally agreed five elements such as skills to perform a job, willingness to innovate, work performance with quality and quantity and knowledge of job responsibilities. Despite the confusion that how these phenomena should be accurately defined, but this is a very central variable that associates with the success and output of

the organization (Yusoff, Ali, & Khan, 2014). This is also considered as a total outcome that an individual renders and that is recognized by the institution.

The excellence and performance of a teacher have been a focused apprehension in education. The efficient job performance of a teacher is indispensable for improving an educational system as a whole (Yusoff, Khan, & Azam, 2013). Teacher's performance is defined as the aptitude to fulfill the requirements and demands of the professional development process to the required level by a homogeneous set of knowledge, perspectives, behavior, and skills in a way to accurately display the things (Ghasemi & Keshavarzi, 2014). In view of Werang and Lena (2014) a teacher job performance is the quality and skills of a teacher to put together all necessary and related variables for the increment and improvement of the educational process. Selamat, Samsu, and Kamalu (2013) believed that teacher's job performance is a teacher's method and strategies of teaching and it is associated with teacher's efficiency. It is a process of determining teacher's engagement in daily routine activities to run the school affairs properly. This is also judged as teacher's noticeable attitudes associated with results which are related to instructive objectives.

After determining the importance of teacher's job performance, the second important issue emerged is related to its measurement. A review of teacher's work performance literature reveals that there are some scales available for the measurement of work performance (e.g., Stanford Center for Assessment, Learning and Equity, 2013; Ross, Singer-Dudek, & Greer, 2005; Rebore, 1985). But, they have two clear limitations, first, these scales are developed for West and second, most of the scales measure employees' performance within organizations. They are not specifically designed for measuring teacher's job performance. Despite a growing body of research into teacher's performance, there is a lack of appropriate scales for evaluating teacher's performance based on head's ratings in Pakistan, which raises the significance of this research. Considering its value, the main objective of this research is to address the above issue by developing and validating a scale for measuring teacher's performance based on their heads' ratings.

Study 1: Examining the Dimensionality of the Proposed Instrument

This study was carried out to develop and validate Teacher's Job Performance Scale. The development of this scale was comprised of following steps.

Step 1: Developing Items Pool

The first step of developing TJPS was the items' generation. For this purpose, 20 M.Phil students (15 male, 5 female), 20 Ph.D. students (10 male, 10 female), 10 secondary school teachers (5 male, 5 female) and 10 schools heads (5 male, 5 female) of different subjects were requested to fill in an open-ended questionnaire to find out their perspectives regarding the essential aspects of job performance of teachers. They were requested to mention all those qualities, skills, behaviors and characteristics,

which they think, are crucial for teachers' good job performance. The responses were carefully analyzed and on the basis of them, statements were developed and arranged in the frequency distribution. The statements with the highest frequency were retained to make a pool of 40 items (statements). These statements were displaying different dimensions of teachers' job performance. Moreover, with the help of literature review, these statements were carefully examined and scrutinized by the researcher.

Step 2: Assessing Items Suitability

In the next step, experts were asked to examine items generated in the form of statements. Primarily, these 40 statements were given to 10 Ph.D. researchers and 03 university lecturers and they were asked to develop the categories of these statements for teachers' job performance. The purpose was to scrutinize items and clearly designate items into different dimensions to check the inter-rater-reliability. On the basis of researchers' opinions, three facets of teachers' job performance were developed e.g., Instructional Qualities, Professional Qualities, and Personal Qualities. After making these dimensions, the 40 statements were given to the 05 lecturers, 05 assistant professors and 10 Ph.D. researchers, and they were requested to place each statement into their respective category. The selection criterion for the items of different dimensions was 70% consensus among the experts. The repeated statements and the items which were not clearly related to the job performance were rejected. Therefore, only 24 statements out of total 40 could be clearly designated into three categories of teacher's job performance. These statements were written with four-point Likert scale and the scores assigned to this scale were ranging from 1 to 4. Finally, an initial form of the scale for measuring job performance of teachers by their respective heads was developed and was put in next step for EFA.

Step3: Pretesting

In this step, after finalization of the items, EFA was run to study the scale structure.

Participants and Method

To further validate the TJPS and to provide an estimation of its reliability, 24-items were given to head teachers (only the head teachers of public high and higher secondary schools were selected because of their better understanding to evaluate their teachers and having different management related experience and certifications). The population of the study was head teachers of public high and higher secondary schools situated in district Bahawalpur. Total 54 head teachers of public high and higher secondary schools were randomly selected and requested to rate the performance of their randomly selected 432 secondary school teachers (08 teachers per school (04 science and 04 arts). Simple random sampling technique is always preferred due to enhanced generalizability with a wider involvement of participants (Haider & Qureshi, 2016). Of the head teachers, 27 (50%) were male and 27 (50%) were female.

Approxmately 35 (65%) heads hold master degree and 19 (35%) M.Phil. All of the head teachers have M.Ed degree as profession qualification. The head teachers age range from 36 – 55 years (M = 46.87, SD = 8.75) and experience range from 12 – 26 years (M = 18.10, SD = 8.92). However, the completed questionnaire of 376 secondary school teachers (188 male and 188 female) with age 19-48 years (M = 32.43, SD = 8.29) and experience 1-27 years (M = 13.29, SD = 8.15) from 54 public high and higher secondary schools were returned by their heads with a response rate of 87.03%. Data were approximately 5 times greater than the total number of statements (Field, 2013). We personally visited the selected schools and requested the headmaster/headmistress to rate their teachers' performance. In some schools, it was noted that some school heads were hesitant in providing the true information. However, we convinced them, informed them the rationale of the study, assured respondents the confidentiality, and requested to complete the scale.

Exploratory Factor and Reliability Analysis

EFA with PCM followed by varimax rotation was run on 24-statements to extract the uncorrelated items of the questionnaire. The correlation analysis revealed that all statements correlate with at least the other variable at .30 which suggests suitable factorability. All 24-items in the scale associated fairly and none of the correlation coefficients were large so, there was no reason to remove any statement. Moreover, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy revealed that it is very suitable for this data. The value of KMO = .826 is higher than the suggested value of .5 (Kaiser, 1974). Furthermore, Bartlett's Test of Sphericity was also significant, χ^2 (66) = 6082.40, $p < .000$, demonstrating that factor analysis is a suitable method (Bartlett, 1954). Normal distribution of all items also suggested that there is no need to delete any item due to a high skewness (>2) or kurtosis (>7) (Finch &West, 1997). Considering this overall criteria, EFA was considered appropriate with 24-items.

To reach a meaningful factor structure, 1, 2, 3, and 4-factor solution was examined. Finally, the whole procedure yielded 24-items divided into 3-dimensions with each factor has more than one eigen-value and together explained 64.05% of the common variance in the measured construct (Table 1). The final factors were comprised of those items with factor loadings equal to or greater than 0.4 on a specific dimension, cross-loadings not exceeding .3 and not loaded on two or more than two factors simultaneously. These findings, therefore, present primary help for the strength of proposed instrument (i.e., TJPS). The minimum score achieved could be 24 and maximum 96, whereas, high score demonstrates better job performance.

Table 1
EFA Factors Loadings based on Principal Components Method

Q #	Items	F1	F2	F3
Q5	Teacher properly prepares and delivers his/her lectures	.93		
Q14	Teacher uses daily life examples to clarify concepts	.91		
Q1	Teacher encourages students to participate in co-curricular and extracurricular activities	.83		
Q9	Teacher uses different teaching methods in classroom	.79		
Q19	Teacher appreciates students' questioning and classroom discussion	.71		
Q20	Teacher uses variety of teaching materials (AV aids) in classroom	.65		
Q13	Teacher provides a favorable learning environment to the students	.52		
Q7	Teacher constantly evaluates students' learning	.40		
Q24	Teacher maintains a respectable relationship with students		.89	
Q16	Teacher actively participates in school activities		.81	
Q15	Teacher maintains strict discipline in classroom		.79	
Q18	Teacher obeys rules and regulations of school		.74	
Q3	Teacher has a good working relationship with colleagues		.61	
Q23	Teacher maintains a good relationship with administrative staff		.58	
Q11	Teacher keeps contact with the parents		.53	
Q17	Teacher gives attention to increase his/her profession knowledge		.49	
Q6	Teacher is punctual in performing duties			.87
Q12	Teacher has a good sense of humor			.81
Q22	Teacher speaks loudly in the classroom			.77
Q10	Teacher gives proper attention to his/her work			.71
Q4	Teacher performs his/her duties honestly			.62
Q8	Teacher performs his/her duties according to the requirement			.51
Q2	Teacher has a good personality			.44
Q21	Teacher is a responsible person			.41
	Eigen Value	5.45	2.61	1.30
	% of Total Variance	31.42	21.77	10.86
	Cronbach's Alpha	.74	.83	.70

The first factor was named as "Instructional Qualities," consists of 08 items representing the teaching qualities of school teachers. The loadings of these 08 items (05, 14, 01, 09, 19, 20, 13, and 07) range from .93 to .40, with 31.42% explained variance. The second dimension "Professional Qualities," comprises 08 items signifying the professional qualities of school teachers. These 08 items (24, 16, 15, 18, 03, 23, 11, and 17) load .89 to .49 with 21.77% explained variance. The third and last factor is termed as "Personal Qualities," also involving 08 items describing the personal characteristics and qualities of school teachers. These 08 items (06, 12, 22, 10, 04, 08, 02, and 21) have factor loadings between .41 and .87, and together explain 10.86% of the variance. The analysis of the reliability coefficient of TJPS depicts the Cronbach's α value of .87 for whole scale.

Study 2: Role of Background Variables (Gender, Location and Job Status)

The idea of group comparison was used as indicator of construct validity (Cohen & Swerdlik, 2010) for the effect of gender, location and job status in performance.

Respondents

In the second phase of the study, data were collected from 80 headmasters/headmistress of conveniently selected public high and higher secondary schools, and they were requested to rate the performance of their 640 secondary school teachers (08 teachers per school (04 science and 04 arts). However, the completed scale of 621 secondary school teachers from 80 public high and higher secondary schools of district Bahawalpur were returned by heads with a response rate of 97.03%. Of the teachers, 308 (49.6%) were male, and 313 (50.4%) were females. Out of total sample, 315 (50.7%) were from urban schools and 306 (49.3%) were from rural schools. The teachers age range from 21 – 59 years (M = 40.03, SD = 10.48) and experience from 1 – 38 years (M = 15.52, SD = 10.37). Of the head teachers, 40 (50%) were male and 40 (50%) were female. Approxmately 48 (60%) head teachers have academic qualification as master, 26 (32.5%) M.Phil and 6 (7.5%) Ph.D. The head teachers age range from 38 – 57 years (M = 45.12, SD = 9.68) and experience range from 15 – 30 years (M = 19.45, SD = 10.25) respectively.

Results

For determining the psychometric properties of the scale, CFA, internal consistency reliability and correlation matrix for subscales were calculated. Descriptive statistics were computed on transformed scores.

Hypothesized Model 1

The first model was hypothesized as one factor (TJPS), explaining all variance between 24 statements. From the first model, we are thinking teacher's job performance as a single main factor. This perception was strengthening by the formal practice of

assembling new construct by including the individual statements in the construct to get the total score.

Hypothesized Model 2

In second model, we hypothesized that 24 statements split into three first-order factors (i.e., instructional qualities, professional qualities and personal qualities) relied on the findings of previous study. The varimax (orthogonal) rotation in Study-1 extracted three dimensions, thus, Model 2 is considered a reasonable model for current data.

Table 2
Hypothesized Models and Goodness-of-Fit Indices

Fit measure	Threshold for good fit	Threshold for acceptable fit	1 First-order factor model value	3 First-order factor model value
X^2 (df)	–	–	993.52 (102)	243.69 (96)
X^2/df	$X^2/df < 3$	$3 < X^2/df < 5$	9.41	2.96
NFI	$.95 \leq NFI \leq 1$	$.90 \leq NFI \leq .95$	.59	.91
GFI	$.95 \leq GFI \leq 1$	$.90 \leq GFI \leq .95$	.82	.93
RMSEA	$0 < RMSEA < .05$	$.05 < RMSEA < .08$	.08	.05
TLI	$.95 \leq TLI \leq 1$	$.90 \leq TLI \leq .95$	.64	.90
CFI	$.95 \leq CFI \leq 1$	$.90 \leq CFI \leq .95$	.61	.92

NFI = Normed Fit Indices; GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error of Approximation; TLI = Tucker-Lewis Index; CFI = Comparative Fit Index.

In the present study, many indices were utilized to obtain the satisfactoriness of the hypothesized models (Table 2). Since there is no agreed upon or globally tolerable statistic as an index of ensuring model adequateness, for this reason, different indices were measured to check the models. Moreover, chi-square and Goodness of Fit Index (GFI) were also calculated to check the individual model. In addition, RMSEA was also employed to calculate the lack of fit in the hypothesized models (Browne & Cudeck, 1993; Steiger & Lind, 1980). In the end, two incremental fit index measures, TLI (Tucker & Lewis, 1973) and CFI (Bentler, 1990) were also used. Evaluating all the indices of goodness-of-fit judged in Study-2, first hypothesized model does not give a considerably better fit by normal standards. However, Model 2 significantly improves all indices compared to the first model and displays good fit, as specified by the different indices of model fit.

Table 3
Mean, SD, Correlation Matrix, and Alpha Reliability Coefficients for TJPS and Sub-scales

Sr #	Measures	Mean	SD	1	2	3	4
1	Instructional Qualities	2.73	0.62	1.00			
2	Professional Qualities	3.12	0.51	.608**	1.00		
3	Personal Qualities	3.04	0.53	.662**	.816**	1.00	
4	TJPS	2.96	0.49	.866**	.892**	.918**	1.00
	Cronbach's α			0.719	0.816	0.773	0.887

**p < 0.01

Pearson correlation matrix for TJPS and its dimensions are good (Table 3). Dimensions to total scale association and inter-subscales association are significant at p < .01 that demonstrate the internal consistency and a measure of construct validity. Overall statistically moderate and high positive correlations were found among the subscales of TJPS. Professional qualities has a moderate significant correlation (r = .608, p < .01) with instructional qualities. The facet, personal qualities also has moderate correlation with instructional qualities (r = .662, p < .01) and high correlation with professional qualities (r = .816, p < .01). Similarly, TJPS has high correlation with instructional qualities (r = .866, p < .01), professional qualities (r = .892, p < .01), and personal qualities (r = .918, p < .01) respectively.

In gender-wise analysis, independent sample t-test was applied to study the difference among male (n = 303) and female (n = 313) teachers on TJPS.

Table 4
Gender Difference on TJPS

Sr #	Scales	Gender	Mean	SD	t	Sig	95% CI	
							LL	UL
1	Instructional Qualities	Male	2.75	0.85	2.327	.032	-1.237	-.063
		Female	3.40	0.24				
2	Professional Qualities	Male	3.25	0.47	1.274	.219	-.596	.146
		Female	3.48	0.30				
3	Personal Qualities	Male	3.13	0.66	1.361	.190	-.827	.177
		Female	3.45	0.37				
4	TJPS	Male	3.04	0.60	1.969	.044	-.827	.027
		Female	3.44	0.23				

There is a significant difference between both groups regarding performance (Table 4). In instructional qualities subscale, the difference is statistically significant among male (M = 2.75, SD = .85) and female (M = 3.40, SD = .24) teachers t (619) = 2.327, p < .032. Moreover, on the basis of overall TJPS, there is also a significant difference between the performance of male (M = 3.04, SD = .60) and female (M = 3.44, SD = .23) teachers t (619) = 1.969, p < .044. As a whole, the high mean score of female teachers showed that they are more efficient performer in schools as compared to male teachers.

In location-wise analysis, independent sample t-test was applied to study the difference among urban (n = 315) and rural (n = 306) teachers on TJPS.

Table 5
Location Difference on TJPS

Sr #	Scales	Location	Mean	SD	t	Sig	95% CI	
							LL	UL
1	Instructional Qualities	Urban	2.73	0.64	-.279	.780	-.112	.084
		Rural	2.74	0.61				
2	Professional Qualities	Urban	3.13	0.51	.562	.574	-.057	.104
		Rural	3.11	0.51				
3	Personal Qualities	Urban	3.06	0.54	.888	.375	-.046	.123
		Rural	3.02	0.53				
4	TJPS	Urban	2.97	0.50	.396	.693	-.062	.094
		Rural	2.96	0.49				

There is no significant difference between urban (M = 2.97, SD = .50) and rural (M = 2.96, SD = .49) groups regarding teachers' performance t (619) = .396, p < .693 (Table 5). As a whole, the high mean score of urban teachers revealed that they performed better than the rural teachers.

In job-status-wise analysis, independent sample t-test was applied to study the difference among permanent (n = 520) and contractual (n = 101) teachers on TJPS.

Table 6
Job Status Difference on TJPS

Sr #	Scales	Job Status	Mean	SD	t	Sig	95% CI	
							LL	UL
1	Instructional Qualities	Permanent	2.79	0.72	2.283	.029	.056	.953
		Contractual	2.28	0.58				
2	Professional Qualities	Permanent	3.15	0.56	3.182	.003	.192	.868
		Contractual	2.63	0.42				
3	Personal Qualities	Permanent	3.07	0.61	3.691	.001	.278	.958
		Contractual	2.45	0.32				
4	TJPS	Permanent	3.00	0.55	3.688	.001	.248	.854
		Contractual	2.45	0.25				

The results revealed that there is a significant difference between permanent and contractual teachers regarding job performance in high and higher secondary schools. In the subscales, such as instructional qualities, professional qualities, personal qualities and in total teacher's job performance (TJPS) permanent (M = 3.00, SD = .55) and contractual (M = 2.45, SD = .25) teachers differ significantly t (619) = 3.688, p < .001. As a whole, the high mean score of permanent teachers showed that they performed better as compared to contractual teachers in high and higher secondary schools.

Discussion and Conclusion

The core purpose of the current study was to develop an indigenous, short and psychometrically suitable tool to measure the teacher's job performance in Pakistan and analyzing the effect of background variables on their work performance. As very few attempts have been made so far to measure this fact in the country, the present TJPS is the important tool of its kind developed in Pakistan. This is a multidimensional scale comprised of three factors such as instructional qualities, professional qualities, and personal qualities. In the scale validation procedure, EFA extracted a 24-item scale, which shows appropriate psychometric properties and further confirmed by CFA. The findings of EFA demonstrated that factor loadings ranged from 0.40 to 0.93 and the value of KMO was 0.82. Moreover, the total eigen-values for all the 24-items were above 1. The scale reliability statistics reveals that the Cronbach's α of overall scale was 0.87 and mean item-total-correlation up to 0.73, which proves the internal consistency of the scale.

Further, CFA was applied to know the items structure and fitness in the second study. The 3-factor-model was found much reliable with data and revealed better fit as compared to 1-factor-model, i.e. $\chi^2/df = 2.96$, NFI = .91, GFI = .93, RMSEA = .05, TLI = .90, and CFI = .92. In addition, the correlations between TJPS and its subscales were also in the expected direction, maintaining the convergent validity of the TJPS. This result also supports the assumption that the TJPS dimensions evaluate various aspects of teacher's job performance. It is also proposed that TJPS is internally reliable and a valid measure for identifying job performance among school teachers.

Numerous studies have demonstrated that teachers' gender has its effect on teachers' performance and effectiveness. The findings of the current study also revealed that the difference between male and female teachers regarding performance is significant. The performance of female teachers was much better than the male teachers in public schools. Hanif, Tariq, and Nadeem (2011) argued that gender is a strong predictor of teacher's job performance. They believed that gender accounted for 15% variance in teacher' job performance and emerged as a major determinant of work performance of teachers. Norlander-Case, Reagan, and Case (1999) expressed that female teachers tend to perform better in teaching than their male counterparts. On the contrary, Akiri and Ugborugbo (2008) found no noteworthy dissimilarity between the performance of male and female secondary school teachers.

Moreover, the study reveals no considerable difference between urban and rural school teachers regarding performance. The findings provide evidence that the performance of urban and rural secondary school teachers is same. However, the high mean score of urban teachers demonstrates better performance of urban teachers as compared to rural teachers in public schools. This result is also supported by Akiri and Ugborugbo (2008) described no significant difference between the performance of urban and semi-urban teachers at secondary school level. However, they reported a major difference between urban and rural teachers in terms of performance. The study results also explained a significant difference between the performance of permanent and contractual teachers in schools. Moreover, the high mean score of permanent teachers described that they performed better as compared to contractual teachers. Furthermore, Fyfe (2007) reported no significant difference between the performance of permanent and contractual teachers. On the other hand, some studies demonstrated that there is a significant difference between the performance of permanent and contract teachers. They found contract teachers more efficient as compared to regular teachers (Atherton & Kingdon, 2010; Hameed, Dilshad, Malik, & Batool, 2014). The low performance of contractual teachers in the present study may be attributed to various reasons resulted by weaker commitment, low job satisfaction, low level of organizational justice, the absence of ethical climate, the harsh behavior of management and strict supervision of contractual teachers.

References

Akiri, A. A., & Ugborugbo, N. M. (2008). An examination of gender's influence on teachers' productivity in secondary schools. *J. Soc. Sci, 17*(3), 185-191.

Armstrong, M. (2007). *Performance management, basic strategies and practical guidelines*. Translation N. Mirsepasi and Asmaly Kavoosi. Tehran: Cashmere Publications.

As'ad, M. (1995). *Psikologi Industri*. Yogyakarta: Liberty.

Atherton, P., & Kingdon, G. (2010). *The Relative Effectiveness And Costs Of Contract And Regular Teachers In India.* Institute of Education, University of London.

Aziz, M. A. (2012). Effects of Demographic Factors & Teachers' competencies on The Achievement of Secondary School Students in Punjab. *Gomal University Journal of Research, 28*(1).

Baldoni, J. (2005). *Great Motivation Secrets of Great Leaders (POD)*: McGraw Hill Professional.

Bartlett, M. S. (1954). A note on the multiplying factors for various χ 2 approximations. *Journal of the Royal Statistical Society. Series B (Methodological)*, 296-298.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246. http://dx.doi.org/10.1037/0033-2909.107.2.238

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing Structural Models* (pp.136–162). Newbury Park, CA: Sage.

Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. *Personnel Selection in Organizations, 3570*.

Cohen, R. J., & Swerdlik, M. E. (2010). *Psychological Testing and Assessment: An Introduction to Tests and Measurement.* Singapore: McGraw-Hill Companies.

Colquitt, J., LePine, J. A., Wesson, M. J., & Wu, X. (2010). *Organizational Behavior: Essentials for Improving Performance and Commitment*: Dongbei University of Finance & Economics Press.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*: Sage.

Finch, J. F., & West, S. G. (1997). The investigation of personality structure: Statistical models. *Journal of Research in Personality, 31*(4), 439-485.

Fyfe, A. (2007). *The use of contract teachers in developing countries: Trends and Impact*. Working Paper: International Labour Office, Geneva.

Ghasemi, B., & Keshavarzi, R. (2014). The relationship between organizational climate, organizational commitment and organizational citizenship behavior in a hospital environment. *Reef Resources Assessment and Management Technical Paper, 40*(2), 759-773.

Haider, S. Z., & Qureshi, A. (2016). Are All Children Equal? Causative Factors of Child Labour in Selected Districts of South Punjab, Pakistan. *Journal of New Approaches in Educational Research, 5*(1), 3-10.

Hameed, Y. M. Y., Dilshad, R. M., Malik, M. A., & Batool, H. (2014). Comparison of academic performance of regular and contract teachers at elementary schools. *Asian Journal of Management Sciences & Education, 3*(1), 89-95.

Hanif, R., Tariq, S., & Nadeem, M. (2011). Personal and job related predictors of teacher stress and job performance among school teachers. *Pakistan Journal of Commerce and Social Sciences, 5*(2), 319-329.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31-36.

Kayisoglu, N. B. (2015). Validity and reliability studies for scale of evaluating physical education teachers based on student ratings (SEPETBSR). *Journal of Physical Education and Sport Management, 6*(8), 60-69.

Norlander-Case, K. A., Reagan, T. G., & Case, C. W. (1999). *The Professional Teacher. The Preparation and Nurturance of the Reflective Practitioner. Agenda for Education in a Democracy. Volume 4*: ERIC.

Rebore, R. W. (1985). *Educational administration: A management approach*: Prentice Hall.

Richards, Jack C. and Lockhart, Charles. 1996. *Reflective Teaching in Second Language Classrooms.* Cambridge: Cambridge University Press.

Ross, D. E., Singer-Dudek, J., & Greer, R. D. (2005). The teacher performance rate and accuracy scale (TPRA): Training as evaluation. *Education and Training in Developmental Disabilities*, 411-423.

SCALE, 2013. *Teaching Performance Assessment Scale (TPAS*) Retrieved 11th July, 2013, from https://scale.stanford.edu/teaching

Selamat, N., Samsu, N. Z., & Kamalu, N. S. M. (2013). The Impact of Organizational Climate on Teachers' Job Performance. *Educational Research, 2*(1), 71-82.

Steiger, J. H., & Lind, J. (1980, May). *Statistically-based tests for the number of common factors.* Paper presented at the Annual Spring Meeting of the Psychometric Society, IA.

Suliman, A., & Al Kathairi, M. (2012). Organizational justice, commitment and performance in developing countries: The case of the UAE. *Employee Relations, 35*(1), 98-115.

Tucker, L. R., & Lewis, C. (1973). The reliability coefficient for maximum likelihood factor analysis. *Psychometrika,* 38, 1–10. http://dx.doi.org/10.1007/BF02291170

Werang, B. R., & Lena, L. (2014). Relationship between Principal's Leadership, School Organizational Climate, and Teachers' Job Performance at State Senior High Schools in Merauke Regency-Papua-Indonesia. *International Journal of Education and Research, 2*(6), 635-640.

Yusoff, R. B. M., Ali, A. M., & Khan, A. (2014). Assessing Reliability and Validity of Job Performance Scale among University Teachers. *Journal of Basic and Applied Scientific Research, 4*(1), 35-41.