



## Multidimensionality of job performance: An empirical assessment through scale development

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**Abstract.** The study aims to develop and validate a job performance scale from the Indian context. The supervisory rating scale has been used for the present study. A convenience sample of 423 principals was taken to rate teachers' performance. Exploratory and confirmatory factor analyses (CFA) were used for validating the scale. The study found that job performance is a higher-order construct with task-performance, contextual-performance, and counterproductive-work-behavior as its dimensions. The results of CFA indicate the reliability and validity of the scale. The study can be a very effective tool to measure job performance among teachers. The principals, supervisors, and policymakers can use this scale to measure the performance of teachers. The present study is the first of its kind to develop and validate the scale from the Indian context.

**Keywords:** Job performance, supervisory rating scale, task performance, contextual performance, counterproductive work behavior

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### INTRODUCTION

Performance is an important tool to measure the effectiveness of the individual and organizations (Cardy & Loenard, 2011; Sultana & Chechi, 2018). It is a complex series of measures that include different aspects of a job along with employees and its surroundings (Milkovich & Wigdor, 1991; Sonnentag Volmer & Spsychala 2008). Various methodologies to date were used by researchers to delineate the multi-dimensionality of job-performance (Suliman, 2001). The performance includes performance as a function of outcomes, behavior, and personal traits (Milkovich & Wigdor 1991). The study advocates job performance as a function of behaviors in which employees are involved at work (Jex, 2002). Performance is the outcome of an employee's series of behavior in an organization (Berghe & Hyug, 2011). Cardy (2004) explains that all the tasks performed by an employee contribute to job performance, which comprises of observable and non-observable behaviors that can be appraised (Vishwesvaran, Ones & Schmidt 1996; Rich, Lepine & Crawford. 2010). Therefore, job performance focus on an employee's behaviors and actions during their job rather on the results of their actions (Koopmans, Bernaards, Hildebrandt, Schaufeli, Henrica & Beek, 2011).

Researchers attempt to explain performance dimensions in qualitative and quantitative aspects. Most of the studies on performance remained more confined to task-performance, which is demarcated as the capability with which an employee performs such specified task which is fundamental to his/her job profile (Campbell, 1990). Rotundo and Sackett (2002) argue that in addition to the task, contextual performance and counterproductive work behavior also exists. The organizational, social and psychological environment of any organization is supported by the contextual performance of an employee which indirectly contributes to firm performance. It is an employee's discretionary behavior that is not defined in their job description (Borman & Motowildo, 1993; Amjad, Sabri, Ilyas & Hameed, 2015). Hence, job performance is more than just executing specific tasks at work.

Most of the job performance measures are developed considering only one dimension. Therefore, the present study is an endeavor to validate job performance scale considering all the components of performance in the Indian context. After an extensive literature review, it was found that most of the performance measures include self-rating scale. Self-rating scales do not adequately measure true performance as employees tend to rate their performance at a

higher level of favorability (Heidemeier, 2005). The aim of the present study is to develop a supervisory rating scale so as to eliminate the leniency bias in performance measure. The supervisory rating scale for performance has been found more reliable than any other performance measure (Viswesvaran *et al.*, 1996).

## LITERATURE REVIEW

### Job Performance

The performance of an individual in a job modifies with an increase in experience or learning. Majority of the researchers opine that the increase in time expended in particular job increases the performance in the beginning and gradually reaches upward (Avolio, Waldman & McDaniel, 1990; Quinones, Ford & Teachout, 1995). During the initial phase of acquiring skills, the performance of individual counts on controlled-processing which is the accessibility of declarative knowledge and the optimal allocation of limited attentional resources. In the later process, the performance of an individual largely depends on automatic processing, technical understanding and psychomotor-abilities (Ackerman, 1988).

For identification of underlying procedures of job performance, Murphy (1989) distinguishes the transition from maintenance. A transition occurs when employees are fresher's in their job and later occurs when knowledge and abilities are required to execute the job. Intellectual aptitude is extremely pertinent in the transition period. Cognitive ability turns out to be less essential when dispositional elements like inspiration, interest, and ethics upsurge in relevance in the maintenance phase.

There isn't any undeviating pattern of development in performance over-time (Sonnetag & Frese, 2002) which is further supported by Zikar and Slaughter (1999) who state that transformation in performance over-time is not consistent as different employees have a different pattern of intra-individual transformation. Furthermore, inconsistency in job-performance is because of variations in employee's psycho-physiological condition which include processing capacity across-time. Factors like prolonged hours spent at work, instabilities of the circadian rhythm, or exposure to strain contribute to the change in the psycho-physiological state. These factors result in fatigue, decreased activity of an employee. However, it is not obligatory that these states always result in a performance decrement of an individual.

### Dimensions of Job Performance

Job Performance construct is multi-dimensional in nature with little consensus as to how to measure job performance. Previous studies found that the job performance of an individual is comprised of a task and contextual performance (Borman & Motowildo 1993; Campbell, 1990), whereas, Pulakos, Arad, Donovan and Plamondon (2000) classified job performance into task-performance, contextual-performance, and adaptive-performance. It was Sinclair and Tucker (2006) who further categorized job performance into four distinct dimensions viz., task-performance, contextual-performance, counterproductive-behavior, and adaptive-performance.

#### *Task performance (T.P.)*

Task-performance is conceptualized as a behavior associated with fundamental tasks that are mandatory for a specific job (Christian, Garza & Slaughter, 2011). It is an adeptness of employees with which they perform core tasks specified in their job duties. In-role performance and technical proficiency are the terms frequently used to describe the task performance of an employee (Sonnetag & Frese, 2002). The job role is another term used to describe task performance in terms of quality and quantity of work output (Welbourne, Johnson & Erez, 1998). Several frameworks have been proposed to conceptualize job performance in which task performance has been classified into task behavior (Murphy, 1989), Job-specific task proficiency (Campbell, 1990) productivity, quality and job understanding (Viswesvaran & Ones, 2000).

Renn & Fedors (2001) framework is the only framework that distinguishes the task performance into work quantity and quality.

Researchers describe task performance differently considering the job area or profession of an employee. For example, task-performance for clerical staffs are described as working perfectly, concerned for time, detail and planning (Arvey & Mussio, 1973; Mensah, 2015) whereas for public accountants understanding, planning and revising works are used to describe task performance (Jiambalvo, 1979; Chu & Lai, 2011). The Table 1 presents the overview of the identified framework of task performance and its classification according to the different professions by researchers.

**Table 1.** Overview of the identified conceptual framework of task performance (T.P.) and its classification

Author	Respondents/Area Assessed	Dimensions
Engelbrecht & Fischer (1995)	Supervisors	Task Structuring & Probing, Synthesis & Judgment.
Cai & Lin (2006)	Teachers	Teaching effectiveness, Teacher-student interaction, Teaching Values
Osim, Uchendu & Mbon, (2012)	Secondary school teachers	Teaching-task, Assessment of learners, Academic Performance, Classroom-Management
Bhat & Beri (2016)	University Professors	Job-specific-task proficiency, written and oral communication expertise, supervision in case of leadership position, Partially Management

*Source: Authors compilation*

### Contextual performance (C.P.)

Borman and Motowildo (1993) was the first who proposed the concept of contextual performance and its taxonomy which was enumerated as (a) volunteering for actions beyond employees prescribed job requirements; (b) assistance-to-others; (c) acquiescently defending organizational aims and objectives; (d) following institutional instructions as well as suggested procedures even in an unfavorable situation and (d) Perseverance of zeal and application when needed to complete important task requirements. Later on, Conway (1999) classified it into three traits namely cooperating others, making extra efforts and observing the regulation of the organization. Contextual performance is demarcated as the undertakings which add to the social and psychological core of the organization. Basically, it comprises of those behaviors that indirectly bestow organizational performance by supporting its organizational, social and psychological environment (Christian, Garza & Slaughter, 2011). It deals with only those characteristics of performance which upholds and enriches the organization's social network and psychological climate that ropes technical tasks.

An employee's discretionary behavior that is not defined in their job description and generally goes beyond specified job or task is contextual performance (Spector & Fox, 2002, Sonnentag, Binnewies & Mojza, 2010; Amjad *et al.*, 2015). These job behaviors enhance the productivity of the organization (Motowidlo & Van Scotter, 1994; Podscoff & MacKenzie, 1997), resulting in the contribution to customer satisfaction (Robinson & Morrison, 1995). It is essential for the wellbeing of both organizations as well as its employees (Reilly & Aronson, 2009) and it also contributes to the organizations' culture and climate. Contextual performance can also be perceived as a perspective through which revolution and maintenance activities are supported in organizations (Befort & Hatrup, 2003).

To uphold and upgrade the organizational, social and psychological environment, contextual performance is considered as the most crucial aspect of job-performance (Bilal, Shah, Yasir & Mateen, 2015; Avery & Murphy, 1998). It also facilitates task performance as it includes concepts like personal initiative, Self-Starting, Smart- Approach for going the extra mile to

perform a particular task at work (Frese, Kring, Soose & Zempel, 1996). It apprehends many essential components of organizational-citizenship-behavior (Organ, 1988), prosocial Institutional actions (Brief & Motowidlo, 1986) and Institutional-spontaneity (George & Brief, 1992). Sonnentag and Frese (2002) classified contextual performance into two categories firstly, behaviors that aim smooth functioning of the organization and secondly conceptualized as a proactive behavior that aims implementation of new and inventive techniques and processes in an organization that favors a positive change in an organization. The contextual performance is multi-dimensional in nature than being a single set of uniform-behaviors (Van Dyne & LePine, 1998, Jawahar & Carr, 2007). The following Table.2 is an attempt to summarize the framework used by researchers to illustrate contextual-performance.

**Table 2.** Overview of the identified conceptual framework of contextual performance (C.P.) and its classification

Author	Respondents/Area Assessed	Dimensions
Coleman & Borman (2000)	Psychologist	Interpersonal-citizenship Performance, Organizational-Citizenship Performance, and Job-Conscientiousness.
Judge, LePine, & Rich (2006)	University Students	Altruism, Conscientiousness, Sportsmanship, Courtesy, Civic Virtue.
Cai & Lin (2006)	Teachers	Occupational Morality, Job dedication, Assistance, and Cooperation.
Luo, Shi, Li, & Miao, (2008)	Chinese Military Soldiers	Helping-Others, Love-of-Learning, Promoting Organizational-benefit and Self-Discipline.
Hu, Jiang & Li (2015)	Secondary School Teachers	Occupational-Morality, Self-Development, Harmonious-Cooperation & Organizational-Identification.

*Source: Authors compilation*

### **Counterproductive work behavior (C.W.B.)**

Counterproductive work behavior (CWB) is an umbrella term used to explain those behaviors of employees which are against the legitimate interest of an organization because it either directly affects an organization function, property or hurts employee in a way which reduces their job effectiveness (Robbinson & Bennett, 1995; Klotz & Buckley, 2013). Behaviors like absenteeism, being overdue for work, undertaking off-challenge conduct, theft and substance abuse are blanketed in counterproductive work behavior. Various terms have been used in the literature for these behaviors including antisocial behaviors (Giacalone & Rosenfeld 1987), deviance (Robinson & Bennett, 1995), destructive behaviors (Warren, 2003; Murphy, 1993), misbehaviors (Southey, 2010) and bad behaviors (Griffin & Lopez, 2005).

Some theorists suggested CWB as a separate and Comprehensive construct besides task and contextual performance (Viswesvaran & ones, 2000 and Rotundo & Sackett 2002). Previous studies explored a variety of CWB behavior in the workplace and tried to categorize it into CWB-I which aims employees and CWB-O which targets organizations (Klotz & Buckley, 2013). Further variety of CWB-I and CWB-O forms have been investigated by researcher and attempted to systematically organize them such as theft, sabotage (Spector, Fox, Penney, Bruursema, Goh & Kessler, 2006), verbal & physical attack, bullying & mobbing (Foldes, 2006; Seçer & Seçer, 2007) is categorized under CWB-I whereas behaviors like organizational retaliatory behavior (Skarlicki & Folger, 1997; Ocel, 2010), time banditry (Kessler, 2007; Ketchen Craighead & Buckley 2008) were categorized under CWB-O. The study compiles the various dimensions of counterproductive work-behavior as shown in Table 3.

**Table 3.** Overview of identified conceptual framework of counterproductive work behavior (C.W.B.) and its classification

Author	Respondents/Area Assessed	Dimensions
Robinson & Binnet (1995)	Technical staffs and students of the university	Production-Deviance, Property-Deviance, Political-Deviance, Personal-Aggression.
Hunts (1996)	Company Employees	Off-task behavior, Unruliness, Theft, Drug Misuse.
Raver (2004)	Working Adults	Interpersonal CWB, Organizational CWB.
Allen. (2008)	HRA	Absenteeism, Presentism
Ozdemir & Demircioglu (2015)	Teachers	Abuse, Theft, Withdrawal

*Source: Authors Compilations*

### **Adaptive performance (A.P.)**

A versatile employee is always valued and praised in his/her organization. They also hold an important position in the success of their organization. The versatility of any employee is judged on the basis of their adjustment and understanding of the changing work environment in their workplace. Adaptive performance has been defined by different authors considering the phenomenon at the individual, group and organizational levels. The adaptive performance of an employee implicates the multiplicity of behavior because of the different work environments of different organizations (Jong & De Ruyter, 2004).

Hesketh and Neal (1999) termed the adaptability of an employee as 'Adaptive Performance' whereas Murphy and Jackson (1999) termed it as 'Role Flexibility'. It was Pulakos *et al.* (2000) who first proposed the comprehensive model of adaptive performance. Table 4 represented below is an attempt to summarize the categories of adaptive performance chronicled by researchers in their studies.

**Table 4.** Overview of identified conceptual framework of adaptive performance (A.P) and its classification

Author	Respondents/Area Assessed	Dimensions
Spiro & Weitz (1990)	Salespeople	Self-monitoring, empathy, androgyny, being an opener, locus of control
Griffin & Hesketh (2003)	IT Sector Employees	Behavioral adaptability, self-efficacy, trait-flexibility, cognitive-flexibility,
Pulakos et al., (2000)	Various job sectors	Handling emergencies, handling work stress, solving problems creatively, dealing with the uncertain work situation, learning work tasks, demonstrating interpersonal, cultural and physical adaptability

*Source: Authors Compilations*

### **Theoretical Anchoring of Job Performance Scale**

Performance is often conceptualized in various contexts including business performance (Vij & Farooq, 2014a; Vij & Farooq, 2014b; Vij & Farooq, 2015; Vij & Farooq, 2016), organizational performance (Farooq, 2014), perceived job performance ( Bhat & Beri, 2016), firm performance (Davis, Greg Bell, Tyge Payne & Kreiser, 2010; Bagheri, Hamid, Rezaei & Mardani, 2012 ), innovation performance (Ahlin, Drnovsek & Hisrich 2012), Employee Performance (Khan & Afzal, 2014), Individual Performance (Sonnentag et.al., 2008), Work Performance (Yusoff, Khan & Azam, 2013), managerial Performance (Engelbrecht & Fischer, 1995) and Managerial Competence (Tett, Guterman, Bleier, & Murphy 2000).

A wide-ranging measure was used to evaluate performance over the past few years however none of the existing scales reflect the full underlying dimensionality of job performance. Some researcher's measure job performance considering task performance as the



only dimension and criteria (Williams & Anderson, 1991), some measure it through contextual performance (Podsakoff & Mackensie, 1989; Van Scotter & Motowildo, 1996) whereas some focus only on CWB (Spector *et al.*, 2006). Numerous drawbacks can be observed in the above-stated measures developed to assess the performance of an individual and amazingly none of these scales appraise or compute job performance considering altogether its explored dimensions.

**Table 5.** *Conceptualization and measurement of job performance*

Construct	Source	Dimensions	Type of Study
Work Performance	Yusoff <i>et al.</i> , (2013)	Task-performance, Contextual-performance	Empirical
Teacher Performance	Amin, Saeed & Lodhi (2013)	Teaching-skills, Management-skills, Discipline and Regularity, Interpersonal-relations	Empirical
Job Performance Scale	Hanif & Pervez (2004)	Teaching-Skills, Management-Skills, Discipline and Regularity, Interpersonal-Skills	Empirical
Teacher Performance	Cai & Lin (2006)	Task-Performance (teaching-effectiveness, teacher-student- interaction and teaching-value) Contextual-Performance (occupational- morality, job-dedication, Assistance and cooperation	Theoretical
Perceived Job Performance	Bhat & Beri (2016)	Task-performance Contextual-Performance, Adaptive-Performance.	Empirical

**Source:** Authors Compilations

Bhat and Beri (2016) developed a 43-item measure considering task-performance, contextual-performance, and adaptive-behavior as dimensions performance whereas Ozdemir and Demircioglu (2015) supported the existence of counterproductive work behavior among teachers. Some researcher's also suggests task performance and contextual performance as the only dimensions of job performance (Yusoff *et al.*, 2013). Other job performance measures are limited to specific contexts like performance scale developed by Vij and Farooq (2016) assessed the performance of CEOs, top-level and middle-level managers only. It was very difficult for the researcher to decide which scale to use for assessing a teacher's job performance. Meanwhile, researchers also can't ignore the fact that measures often operationalize the same dimensions differently according to the job area. This entrusts or stimulated the researcher with the difficult task of operationalizing job performance appropriately according to the need of the present study. Therefore, the researchers found the necessity of developing a psychometrically sound, multi-dimensional measure of teacher's job performance. Table 5 is an attempt to summarize the dimension considered by the researchers to measure performance. Whereas Table 6 represents the identified scales which measure performance in a different context.

**Table 6.** *List of identified performance scales*

Tool Name	Participants	No of Items	Source
Employee Performance Scale	Organizational Members	5	Wiedower (2011)
Performance Scale	Organizational Members	25	Goodman & Svyantek (1999)
Job Performance Measurement	Malaysia Public Service agencies	37	Johari & Yahya (2012)
Role-Based Performance Scale	Employees and Managers	20	Welbourne, Johnson & Erez (1998)
Supervisor Report Measures	Supervisors	21	Rich <i>et al.</i> (2010)
Teacher Job Performance Scale	Teachers	25	Hanif & Pervez (2004)
Teacher Perceived Job Performance	University Teachers	43	Bhatt & Beri (2016)
Business performance Scale	Top-level managers	10	Vij and Farooq (2014b)

**Source:** Authors Compilations

## SCALE DEVELOPMENT AND VALIDATION

The present study adopts the scale development procedure suggested by Hinkin (1995) and Farooq (2016). In the present study, the scale development procedure is broadly classified under three stages. In the first stage, the process involved in the generation of an item is discussed. The next stage (Stage II) elaborates on the steps performed in the scale refinement process. The last stage highlights the scale evaluation process.

### **Stage-I: Item generation and selection**

Items were generated to measure the job performance scale based on a deductive approach (Hinkin, 1995). To generate the items for the undertaken construct in the education sector extensive review of literature has been conducted. The thorough review of literature helped the researcher to identify the keys dimensions of job performance including task performance, contextual performance, adaptive performance, and counterproductive work behavior as shown in Table 7. The investigator initially framed 54-items from the review of literature which measures job performance in the education sector. The statements were generated based on the literature and was measured using five-point Likert-scale ranging from 1-Never to 5-Always.

**Table 7.** *Item summary*

S. No	Factors	Literature Evidence
1	Task Performance	Goodman, (1999) 3-items, Osim <i>et al.</i> , (2012) 18-items, Bott, Svyantek, Goodman & Bernal (2003) 6-items. Greenslade & Jimmieson (2007) 36-items, Befort & Hatrup (2003) 9-items, Spector (1985) 3-items,
2	Contextual Performance	Williams & Anderson (1991) 3-items, Motowildo & VanScotter (1994) 15-items, Greenslade & Jimmieson (2007) 27-items, Befort & Hatrup (2003) 11-items, Hu <i>et al.</i> , (2015) 37-items
3	Counterproductive Behaviour	Spector & Fox (2005) 32-items, Robinson & Bennett (1995), Spector <i>et al.</i> (2006), Ocel (2010)
4	Adaptive Performance	Spiro & Weitz (1990), Morrison (1997), Griffin & Hesketh (2003), de-Jong & de-Ruyter (2004), Chen, Thomas & Wallace (2005), Hans & Williams (2008), Voirin & Roussel (2012).

**Source:** Authors Compilation

The items generated were shown to subject matter experts for content validity. Subject matter experts include professors in the field of performance management. Eight faculty members were selected as subject matter experts. The items were deleted, retained and modified based on the suggestions of subject matter experts. Out of 54 items, 8-items were deleted because of overlapping as per the suggestions given by the experts. The revised scale consists of 46-items which were further sent to the experts for evaluation which resulted in the deletion of another few items. Therefore, the final scale consists of 42-items that were again sent to the experts for review which resulted in no item deletion.

**Table 8.** *Construct definitions provided to experts for content validity*

Construct	Definitions
Task Performance	Task-Performance is demarcated as the proficiency with which employees carry out the core fundamental or technical chores crucial to his or her job.
Contextual Performance	Contextual-Performance is demarcated as behaviors that support the organizational, social, and psychological environment in which the technical-core must function.
Adaptive Behavior	Adaptive-Performance is the degree to which an employee adapts to changes in the work-role or work-environment.
Counterproductive Behavior	Counterproductive-Work-Behaviour is the behavior of an employee that harms the well-being of the other employees as well as the well-being of an organization.

**Note:** These definitions were presented to eight experts of different Indian universities. The experts were requested to indicate the dimension name against each item as per the above definition.

## Stage-II: Refinement of Scale

This stage involves pilot testing and the final data collection which was analyzed using the Exploratory Factor Analysis (EFA) and Confirmatory factor analysis (CFA).

**Pilot testing:** The questionnaire was structured as section A and section B. The first section of the supervisory rating scale consists of questions related to demographic details like age, gender and qualification whereas the section included 42-items measuring teacher's job performance. Data were collected from 423 working principals from the eastern region of Uttar Pradesh, India. Formal consent was taken from the concerned authorities. They were assured about the confidentiality of the data. The principals who participated in the present study were selected from five districts of Uttar Pradesh. The principals were requested to participate and indicate their degree of agreement and disagreement with the teacher's job performance. Out of 423 questionnaires, 27 were found unfit for the analysis and 16 were incomplete. 380 questionnaires were finalized for further analysis which includes item analysis, exploratory factor analysis (EFA) confirmatory factor analysis (CFA) for purification of the scale (Churchill, 1979; Hinkin, 1995; Schwarz, 2014).

**Item analysis:** In the present study items analysis has been performed by computing the Cronbachs alpha which measures the internal consistency of the items of the scale. The investigator used SPSS 20 for assessing the internal consistency of the statements. The results of reliability statistics for the 42-item scale ranged from .689 to .714. The minimum suggested value for Cronbach's alpha is .70 (Nunnally, 1978). Therefore, to improve the internal consistency, the investigator deleted the item with low correlation which improved reliability (Hinkin,1975; Parasuraman, Zeithaml & Malhotra, 2005). Several iterative processes were repeated which results in the deletion of 4-items from the scale. The finalized version of scale with 38 items indicated a Cronbach alpha ranged from 0.722 to 0.823 which was above the threshold level that ensures the internal consistency of the items.

**Table 9.** Reliability of job performance scale

Sub-dimension	No. of Items	Cronbach's Alpha
Task Performance	08	0.722
Contextual Performance	11	0.747
Adaptive Behaviour	08	0.601
Counterproductive Work Behaviour	11	0.823

**Exploratory factor analysis:** The exploratory factor analysis (EFA) was applied to study the factor structure of job performance scale as suggested by Farooq (2016). There is a lack of opinion regarding the adequate sample size to validate a scale. To conduct an appropriate test for statistical significance, some researchers favor respondent-to-statement ratio as 4:1 (Rummel, 1970), some favors it as 5:1 (Hatcher, 1994) whereas some favor a higher ratio of 10:1 (Schwab,1980). But the majority of the researcher favors the ratio of 3:1 (Arrindell & Van Der Ende, 1985). Therefore; the dataset used in the present study satisfies the condition for factor analysis. Hence factor analysis was applied to identify the meaningful factor structure of Job-Performance scale. The Kaiser-Meyer-Value (KMO) value was 0.823 which was above the threshold level (Tabachnick & Fidell, 1996). Table 10, below presents the KMO and Bartlett's Test values.

**Table 10.** KMO and Bartlett's test values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.823
Approx.Chi-Square	9972.545
Bartlett's Test of Sphericity Df	378
Sig.	.000



The above Table 10 indicates that the performance dataset of the present study fulfills the criteria to conduct further analysis. The researcher employed principal component analysis (PCA) and the varimax method of rotation for extracting the factors. The extraction of factors includes the application of several iterations to the dataset. In every iteration's 'total variance explained' with a number of factors observed by the researcher. The aim of the researcher is to improve 'total variance explained' as well as obtaining a good matrix with good loadings. The Table 11 below summarizes the results of exploratory factor analysis (EFA) with the rotated component matrix for job performance construct.

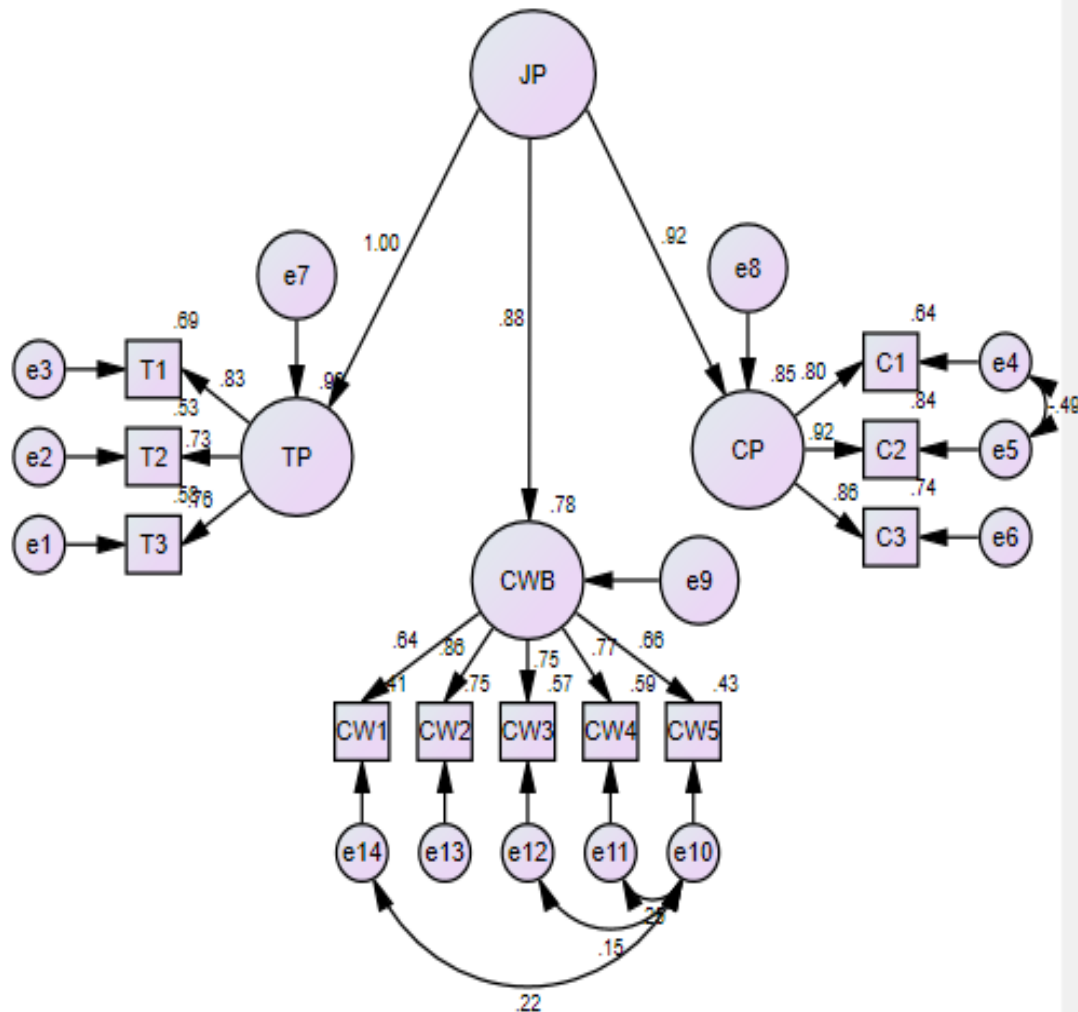
**Table 11.** Results of exploratory factor analysis for the construct job performance (JP) construct

Construct	Factors (% of Variance)	Dimensions	Item Code	Items	Factor Loading
Job Performance (JP)	Factor 1 (34.085)	Task Performance	T1	Enough proficient in his/her teaching skills while delivering lectures?	0.994
			T2	Uses effective teaching methodology for the facilitation of student's experience	0.993
			T3	Communicates intelligibly with others during school hours.	0.975
	Factor 2 (16.515)	Contextual Performance	C1	Praises and congratulates colleagues when they are awarded honors	0.574
			C2	Discusses and communicate with colleagues about teaching and classroom management.	0.909
			C3	Devote extra time for the overall development of students.	0.928
			C4	Put forward constructive suggestions for the improvement of department or school	0.949
	Factor 3 (16.402)	Counterproductive Work Behavior	CW1	Purposely waste schools materials/supplies.	0.961
			CW2	Comes to school late without permission	0.838
			CW3	Tries to look busy while doing nothing	0.732
			CW4	Blame other employees for his/her error at work.	0.651
			CW5	Takes schools supplies and tools home without permission.	0.609
CW6			Can only work efficiently in a comfortable environment.	0.580	
CW7			Purposely works slowly when things need to get done.	0.552	
CW8			Finds supervisory task hectic.	0.949	
CW9			Takes longer to complete his/her work tasks than planned	0.914	
CW10			Makes fun of other employees personal life	0.788	

The factors that did not have a factor loading more than 0.50 were deleted (Karatepe et al., 2005). The factor loading of the statements ranged from 0.552 to 0.994. A total of twenty-one items were deleted as it could not satisfy the criteria suggested by Karatepe et al. (2005). Therefore, a total of 17-items were finally classified under three factors, with Eigenvalues more than one, were revealed (Kaiser, 1960). A total of 67.002% of the variance was explained by three factors which are acceptable as per the recommendations suggested by various researchers (Field, 2009). The statements classified under different extracted factors. These extracted factors were given appropriate names after reviewing the literature. The emerged factors were task performance (TP), contextual performance (CP) and counterproductive work behavior (CWB). The Table 11 represents our understanding of the extracted factors after reviewing the literature. After naming the extracted factors, the next phase is the validation of

the factor structure. The confirmatory factor analysis was applied. The details of the CFA are discussed below:

*Confirmatory Factor Analysis (CFA):* Job performance (JP) is a multi-dimensional construct with task performance (TP), contextual performance (CP) and counterproductive work behaviour (CWB) as its dimensions. The confirmatory model of job performance was tested with 17-items for all its three dimensions. The figure 1 represents the confirmatory model for job performance scale.



**FIGURE 1: Confirmatory factor analysis model of job-performance scale**

**Table 13. Model fit indices for job performance (JP) scale**

CFA Default Model	RMR	GFI	AGFI	CFI	RMSEA	$\chi^2$	Df	p-value	$\chi^2/df$
I	0.084	0.879	0.821	0.929	0.066	144.847	37	0.000	3.91
II	0.021	0.942	0.918	0.974	0.056	165.526	75	0.000	2.207

The multidimensionality of job performance was checked using CFA. The model in the stage-I indicated poor model fit as shown in Table.13. The model fit-indices such as RMR, GFI, RMSEA were below the threshold level. Therefore, it was decided to go for item purification by eliminating items C4, CW6, CW7, CW8, CW9, and CW10. The eliminated items were having low standardized regression weights which suggest modification indices to the present model. The elimination of the stated items increased the model fit indices as suggested by Fornell and Larcker (1981), which can be observed in the CFA default model-II. The scale refinement was

followed by scale evaluation. The present supervisory rating scale of the job performance of teachers was evaluated by testing the reliability and construct validity of the scale.

### Stage-III: Scale Evaluation

**Multidimensionality and reliability:** The results of the present study explored the multidimensionality of the construct. The value of Cronbach's alpha of the dimension ranged from .761 to .889. Further, the Composite Reliability of job performance (JP) scale was found to be reliable with CR = 0.945, ensuring the validation of the job performance (JP) scale. Hence, it can be concluded that the job performance scale used in the present study indicates a high degree of convergence. The present scale reflects good construct reliability (Fornell & Larker 1981).

**Table 14.** Reliability statistics of job performance (jp) scale

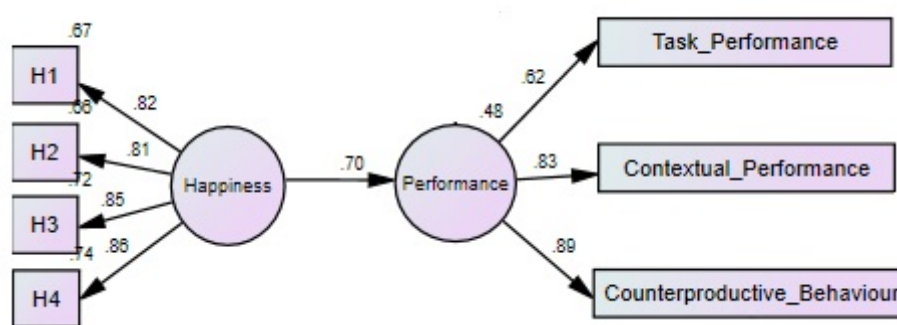
Cronbach's Alpha	N of Items
0.839	11

**Table 15.** Reliability statistics of sub-constructs of job-performance

S. No.	Construct	No. of Items	Cronbach's Alpha
1	Task Performance	3	0.761
2	Contextual Performance	3	0.856
3	Counterproductive Work Behaviour	5	0.889

**Average extracted variance (AVE):** The validity of the job performance scale was assessed using average extracted variance (AVE). The average extracted variance (AVE) of job performance is 0.613, which ensures the convergent validity of the scale.

**Nomological validity:** It is assessed to determine the external construct validity by exploring the relationships between the constructs and other variables (Churchill, 1979). To determine the nomological validity in the present study relationship between subjective happiness and job performance has been assessed with a sample of 312 faculty supervisor. The investigator has established the nomological validity by studying the relationship between subjective happiness with three factors of job performance (task performance, contextual performance, and counterproductive work behaviour). The term subjective wellbeing has been equated by the term happiness by previous researchers (Cropanzano & Wright, 1999; Lyubomirski, 2001). The researchers working on the model of happiness and individuals job performance argued that the happier the worker is the more productive he/she is (Fisher, 2003) as happy employees are more active and interested in their work when compared with their unhappy worker (Bakker & Orlemans, 2011; Jalali & Heidari, 2016).



**FIGURE 2.** Nomological validity assessment model

## DISCUSSION AND CONCLUSION

The study is an endeavor to develop and validate the job performance scale from the Indian context. The scale development procedure suggested by Farooq (2016) and Hinkin (1995) was adopted. The proposed measure is more comprehensive in terms of reliability, dimensionality, and validity. The results of confirmatory factor analysis revealed task-performance as an important predictor of teacher's performance followed by contextual-performance and counterproductive-work-behavior. The study found that job performance is a higher-order construct with task-performance (TP), contextual-performance (CP), and counterproductive-work-behavior (CWB) as its dimensions. This instrument could serve as a tool to measure the job performance of teachers with improved measures.

## IMPLICATIONS

The study has many implications for teachers and academicians. The results of exploratory factor analysis suggest that teacher's job-performance comprises of task-performance, contextual-performance, and counterproductive-work-behavior. The explored information about dimensions of teacher performance will act as a diagnostic tool to measure job performance among teachers. Educationists and policymakers can adopt the scale to assess teacher's job performance by focusing more on task-performance followed by contextual performance and counterproductive-work-behavior. The present study manages to add more empirical support within the respective theoretical domain which indicates the application of all three dimensions in the teaching context, predominantly the government education sector. Meanwhile, composite reliability variance extracted and confirmatory factor analysis has provided evidence of construct validity. It is based on tests of significance and assessment of the measurement model fit. Therefore, three subscales of teachers' job-performance, with first-order and second-order measurement models are a useful tool to examine teacher's performance in the Indian context.

## LIMITATIONS AND DIRECTION FOR FUTURE RESEARCH

The study has many limitations that can be addressed in the future studies. First, it was conducted on a limited sample focusing only on the opinion of school principals. This limitation may weaken the 'external validity' of the findings of the present study.

The second limitation is concerned about the model specification as several alterations were employed to develop and improve the absolute model of performance. The modification is shown in figure 1. In this process, several observed indicators (e.g., CWB 31) were eliminated to increase model-fit-indices. This method was considered to improve the construct validity of the present scale. The procedures of modification used were commonly supported by the researchers whereas some researchers do not support such a method to improve construct validity and suggest that modifications should be built on some sound theoretical grounds. Such suggestions were given to avoid information loss from the inventive model. Instead of the dilemma related to the process of construct validity, researchers found enough literature support which justifies the process. Therefore, it is suggested that the re-specified model of job performance provides a better fit than the model originally proposed.

However, construct validity and model fits of the re-specified model needs to be re-examined by using supplementary data. Based on the limitations discussed in this section it is suggested that researches need to assemble data from diverse samples (e.g. teachers and students) as well as from different public organizations. This will enable the researcher to examine the construct validity and model fits the re-specified model of job performance aptly. Lastly, the present study used the same sample-size for exploratory factor analysis (EFA) and for confirmatory factor analysis (CFA). However, using the same sample size for both EFA and CFA can produce confusing results (Farooq, 2017). The present scale was developed and validated from the Indian context, therefore the scale can be cross-validated to verify its effectiveness in the different cultural contexts. The scale is validated only in teaching context

but the measure can be useful to other professional areas because the present study includes several studies carried out in different professional areas. Thus, it is recommended to apply it to other sectors apart from education.

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