Development and Validation of Performance Appraisal Scale (*PAS-SSTs*) for Secondary School Teachers

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Abstract

The major purpose of this study is to develop a research tool for evaluating the performance of secondary school teachers. The data were collected from 200 teachers working at public and private secondary schools (100 from each sector) of Faisalabad Division. Items were derived from already conducted related studies. The experts' opinion was also taken in this regard. Main factors involved in Performance Appraisal Scale for Secondary School Teachers (PAS-SSTs) were classroom management, subject knowledge, teaching and learning environment, planning and presentation, professional conduct and management of work schedule. Performance appraisal scale contained 29 items. These items were organized and piloted upon 200 teachers from both public and private sector schools. The reliability coefficient (Cronbach alpha) value was measured which was 0.926. A Confirmatory Factor Analysis (CFA) was used to validate the (PAS-SSTs) tool. Fit indices for Performance Appraisal Scale showed an acceptable model fit. Each item was well above the threshold value 0.35 in factor loadings.

Key words: Performance Appraisal, Institution, Environment, Professional conduct, Work Schedule.

Introduction

Performance appraisal is considered the back bone of organizational success. It means achievement, accomplishment and planning of everything. As, Erdogen (2002) explained that performance appraisal is the process of evaluating and observing an employee's performance. Moreover, Armstrong & Baron (2005) stated that performance not only depends on the achievement of people but also the means of achievement. Bates & Holton, (1995) discussed that performance is a multidimensional construct. Brumbach (1988) describes that Performance shows both behaviors and findings. From the above explanation, and comprehension, it is cleared that performance is not only about efficiency, it is also related with acts and behaviors established to achieve the said objectives. It is fulfillment of the duties of employees. It requires the best efforts of the employees about their task (Newstrom & Davis 2001) and also indicates job satisfaction level of an employee. The performance needs regular evaluation for its betterment. The public and private sector schools apply different assessment methods to evaluate the performance of their employees. As Brown (1988) stated that performance evaluation method is a collaborative process of elaborating job requirements, task reports, appraisal conditions, developing tools and reporting outcomes. Similarly, Fletcher (2001) described that the term performance appraisal is used in place of performance evaluation method.

It is an effective tool of Human Resource Management in which work performance is evaluated (Boswell & Boudreau, 2002; Kleiman, 2000). In the view of DeNisi and Pritchard (2006), performance appraisal is proper and distinct performance criterion that is used in the evaluation process. Furthermore, it is an evaluation process in which quantitative scores are

often assigned based on the judged level of the employee's job performance. Appraisal is the only component of the wider system which plays a vital role in the success of Performance Management (Piggot-Irvine, 2003). Birds (2003) recommended that appraisal system is an indispensible measuring tool of teacher's performance. According to Roberts and Pregitzer (2007), Appraisal performance is a formal procedure that produces anxiety and worry in the most experienced managers. Appraisal system may be well-defined as an organized proper communication between a manager and subordinate which generally shapes in the form of a periodic interview in which the performance of the subordinate is discussed and examined (Torrington, Hall, & Taylor 2005).

Review of Related Literature

Teacher appraisal plays a vital role in the success of school organization. The literature on teacher appraisal covers an extensive range of educational fields such as private and public sector schools. Performance measurement monitoring is a vital part of appraisal system that produces the desired behavior and improved performance (Lemieux-Charles, 2003). Performance evaluation and measurement are two interchangeable terms (Fryer, Antony & Ogden, 2009). Vanci-Osam and Askit, (2000); and Lam, (2001) described that an effective appraisal system provides a lot of possible assistances equally to the single employee and the group. Similarly, Lam (2001) advocated that teacher appraisal supports in educational progress, job-related training and career development. Furthermore, it stimulates the effectiveness of teaching learning process. Monyatsi, (2006) added that management with teacher's performance enhances job confirmation, helps in promotion and demotion, teacher's development and motivation.

Monyatsi (2003) discussed two models for the evaluation of a teacher's appraisal system; these are professional and accountability models. Similarly, Danielson, McGreal (2000) stated that, two most important goals of an employee's appraisal system are responsibility and professional development. Professional model has the confidence that teachers wish to improve their performance and increase the learning process of students. This model is a genuine bilateral process between appraisers and appraisee, which creates an atmosphere of belief and privacy. To support teaching and learning process in career development is the major characteristic of this model. In the view of Murdock (2000) the contribution of staff is very important because their performance evaluation leads to motivation. The accountability model is not popular with teachers. Its major distinction has been seen as testing of competency, responsibilities, performance and capabilities of teacher's judgments. In short, it provides evidence for disciplinary procedures.

Appraisal system has a constructive influence on teachers' performance (Saunders, 2000). Similarly, Jacob & Lefgren (2008) concluded that assessment of teachers can measure the quality, effectiveness and ineffectiveness. It guesses students' future successes more significantly than teachers' experience and education. Similarly, Craig (2011) added that the feedback of students plays a vital role in assessing the progress and attitude of teachers in the classes. Likewise, Kumrow & Dahlen (2002) stated that with the help of experience teachers respond effectively with their peer observations. In the opinion of Day (2010), teacher's appraisal system is self-assessment, an accountability, and professional development. Stronge (2010) explained three Cs- i.e. communication, commitment and collaboration which helps in the quality improvement of the teachers. Aguinis (2007) advocated that performance appraisal system is a regular practice in which teacher's performance is mentioned, evaluated and enhanced. This process contains several steps like introduction, career development and a regular feedback about teachers. Wilson (2005) appreciated this point of view that appraisal system is not a single step process; it includes knowledge of teachers, assessment of their performance and their inspiration to perform well and improvements in different areas where

they lagged. In a recent review, Vaillant (2008) introduced a system for assessing teachers and drew attention to the diversity of the teacher's performance appraisal system in the public and private schools. She also identified the conceptual and political factors which facilitate teacher's appraisal process and feedback.

In the light of above-viewed literature, researchers will find it important to appraise the performance of teachers both in private and public secondary institutes. Moreover, it has been deduced that appraisal performance is a highly targeted area to improve the performance of teachers. Keeping in mind the importance of PAS- SSTs was developed. The scale in hand contains six factors of teaching which reflect positive impact on the teacher's performance. These factors are classroom management, knowledge of subject, learning and teaching environment, planning and presentation, professional conduct and management of work schedule. The description of these factors from the literature is as under.

Classroom Management

The term Classroom Management refers to the smooth functioning of classroom activities. It is used to avoid the disorderly behavior towards the students in the classes (Wolfgang, & Glickman, 1986). Many teachers feel that class room management is the most difficult part of teaching. According to Markowitz and Hayman (1976), it is very difficult for a teacher to recover the control of class, when it once loses control. In students' opinion, effective communication of behavioral and academic prospects as well as cooperation learning is necessary for classroom management (Allen, 1986). Classroom management is closely related to matters of inspiration, self-control and esteem (Linda, 1989). Similarly, Evertson and Weinstein (2006), illustrate that classroom management facilitates and supports academic and collective emotional learning. For this purpose, teachers develop loving, sympathetic relations; stimulate social skills and self-regulation between students. In the view of Kauchak and Eggen (2008), the goal of classroom management is not simply maintaining direction but also improving learning of the students.

Subject Knowledge

To attain educational purposes, knowledge of the subject is very important in teaching (Metzler, & Woessmann, 2010). It helps students to improve literacy and learning experiences. Knowledge of the subject determines new ideas and provides opportunity to inquire and discover new information. Quality knowledge is direly needed in the present age. The teachers should have full command on subjects to impart quality knowledge (Rothstein, 2010). Teachers help students to create conceptual meanings of ideas. This knowledge offers a base for learning content knowledge which supports teachers to create handy ideas for others (Shulman, 1987). Teachers are to be more effective if they must struggle rapidly with matters of educational content and general teaching (Crossman, 2003).

Teaching and Learning Environment

Teaching and learning environment refers to the ways which encourage greater engagement with the subject matter and higher quality of learning (Entwistle, 2000). It is also related to the ways of teaching and students' approaches to studying (Trigwell, Prosser and Waterhouse, 1999). It also supports students to become independent and active learner. The provision of best teaching and learning environment is highly challengeable for the teacher. However, planning and collaborative approach helps the teachers to create conducive teaching and learning environment. According to Driscoll (2002), effective communication makes things easier within or outside the classroom, provides good possibilities for feedback and, in short, the students are treated in a friendly manner.

Planning and Presentation

Planning and presentation play a major role in a teacher's goal development and future achievements (United Nations report, 2010). There are useful and necessary skill of professional development in public and private schools. In professional settings, presenters inform others, explain important decisions and encourage thinking about new ideas. These are important steps for planning a presentation in any setting: decide a topic, gather information about your topic, create a presentation outline, determine presentation aids and practice your presentation (Ayres & Hopf, 1990).

Professional Conduct

Professional conduct refers to interaction between teachers, students, employing agencies and other professionals (Zeichner, & Liston, 1996). It is professional conduct which provides foundations for obvious values to be observed at all times. According to the teaching council Act (2001), there are number of professional codes of conduct developed for teachers, i. e. professional development, standards of teaching, knowledge, skills and competency. It also improves the quality of work which is the burning issue of the modern system of government (Baker, 2002). Furthermore, it is an important job for the employees in their career development because it develops their capability and practical skills.

Management of work schedule

Work schedule arrangements refer to choices about the time and situation in which work is conducted (Rau, 2003). Furthermore, Eaton (2003) described that there are two types of work schedule; formal and informal. Formal work arrangement is written in organizational plan and employee must follow this plan, whereas, informal may be undocumented. The head of the department is answerable for handling work schedule of teachers. On the other hand, teachers should be flexible enough to meet departmental operational needs. They always take advance approval of working plan, containing extra time work as well as compensatory period off. Examinations are arranged according to the schedule, pace of work, and time frame. Curricular and co-curricular activities are planned according to the annual schedule (Goldhaber & Brewer, 2000).

Instrument of the Study

The following information was required to infer data from the selected sample of the study which are as follows:

1. The demographic information i.e. gender, qualification and Schools.
2. Performance Appraisal System prevailed in public and private sectors secondary schools.

Regarding the above aspects, data was collected with the help of one questionnaire, i.e. PAS-SSTs. The instrument was developed by the researchers. To make it compatible with the local scenario, it was made valid and reliable. For its validity, the expert opinion was sought from experts. For this purpose, the draft of the tool was consulted with four professionals in the education fields. For the purpose of pilot testing the tool was applied to 200 secondary schools teachers of Faisalabad district. The details of the pilot testing of the instrument were following.

Piloting of Instrument

The research instrument was developed by the researcher himself, piloted prior to tangible application. The detail is given in the following section.

Pilot Testing of PAS-SSTs

PAS-SSTs was developed by the researchers. It was piloted upon 200 Secondary School Teachers in both public and private schools (100 each) at Faisalabad Division. After pilot testing, the factor analysis was done. The reliability of the score was also calculated. The Reliability Coefficient (Cronbach Alpha) was calculated which was 0.926. The description of the factor analysis is as under;

Factor Structure of PAS-SSTs

The different procedures used to explore basic concepts which affect the responses on a number of measured variables, are named factor analysis. This also identifies the association between variables, that is, to categorize variables. The Confirmatory Factor Analysis (CFA) of items has been applied in the study at hand because in ordinal and polytomously scored data CFA. Factor structure of PAS-SSTs has been tested or verified using CFA, described in the table 1.
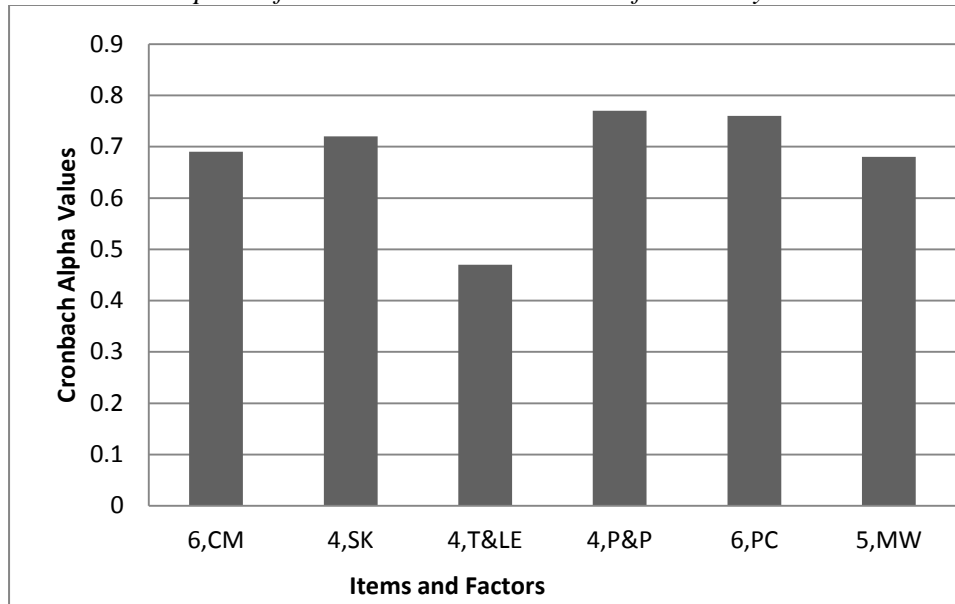
Table: 1

Factor Wise Item Division of PAS-SSTs

Serial No.	Factors	Items
1	Classroom Management	2, 5, 7, 8, 9, 14
2	Knowledge of Subject	1,3, 6, 10
3	Teaching and Learning Environment	4, 11, 15, 17
4	Planning and Presentation	12, 13, 16, 18
5	Professional Conduct	22, 23, 24, 25, 26, 27
6	Management of work schedule	19, 20, 21, 28, 29

Table: 2

Factor Wise Item Division of PAS-SSTs and values of reliability

Serial No.	Factors	Items	Cronbach alpha Values
1	Classroom Management (C M)	6	0.69
2	Subject Knowledge (S K)	4	0 .72
3	Teaching and Learning (T & L E) Environment	4	0.47
4	Planning and Presentation (P & P)	4	0.77
5	Professional Conduct (P C)	6	0.76
6	Management of work schedule (M W S)	5	0.68

Figure: 1
Pictorial Description of PAS-SSTs items and values of reliability

Item Loading

Table 3 shows the factor loading for each item on related dimensions (factors). In (PAS-SSTs), factor loading and component loading are used interchangeably. It is correlation coefficients among the variable and factors. Analogous to Pearson's *r*, the squared factor loading is the percent of variance in that indicator variable explained by the factor. Higher values of loading indicate the strength of relationship between variable and underlying factor. Figures in the table show that all measures (items) load heavily on each underlying factor respectively. Values of factor loading equal or above 0.35 measured to be desired.

Table: 3
*Values of Factor Loading of PAS-SSTs*

Sr. No	C M	S K	T & L E	P & P	P C	M W S
Q1		0.60	- -	- -	- -	- -
Q2	0.62	- -		- -	- -	- -
Q3	- -	0.74	- -	- -	- -	- -
Q4	- -	- -	0.70	- -	- -	- -
Q5	0.69	- -	- -	- -	- -	- -
Q6	- -	0.63	- -	- -	- -	- -
Q7	0.56	- -	- -	- -	- -	- -
Q8	0.58	- -	- -	- -	- -	- -
Q9	O.73	- -	- -	- -	- -	- -
Q10	- -	O.80	- -	- -	- -	- -
Q11	- -	- -	0.76	- -	- -	- -
Q12	- -	- -	- -	0.72	- -	- -
Q13	- -	- -	- -	0.80	- -	- -
Q14	0.81	- -	- -	- -	- -	- -
Q15	- -	- -	1.20	- -	- -	- -
Q16	- -	- -	- -	0.74	- -	- -
Q17	- -	- -	0.73	- -	- -	- -
Q18	- -	- -	- -	0.72	- -	- -
Q19	- -	- -	- -	- -	- -	0.78

Q20	- -	- -	- -	- -	- -	0.72
Q21	- -	- -	- -	- -	- -	0.80
Q22	- -	- -	- -	- -	0.72	- -
Q23	- -	- -	- -	- -	0.70	- -
Q24	- -	- -	- -	- -	0.76	- -
Q25	- -	- -	- -	- -	O.73	- -
Q26	- -	- -	- -	- -	0.77	- -
Q27	- -	- -	- -	- -	0.67	- -
Q28	- -	- -	- -	- -	- -	0.57
Q29	- -	- -	- -	- -	- -	0.52

The factor loading of the PAS-SSTs has been graphically depicted in the following pictorial diagram

Figure: 2

Pictorial description of Values of Factor Loading of PAS-SSTs
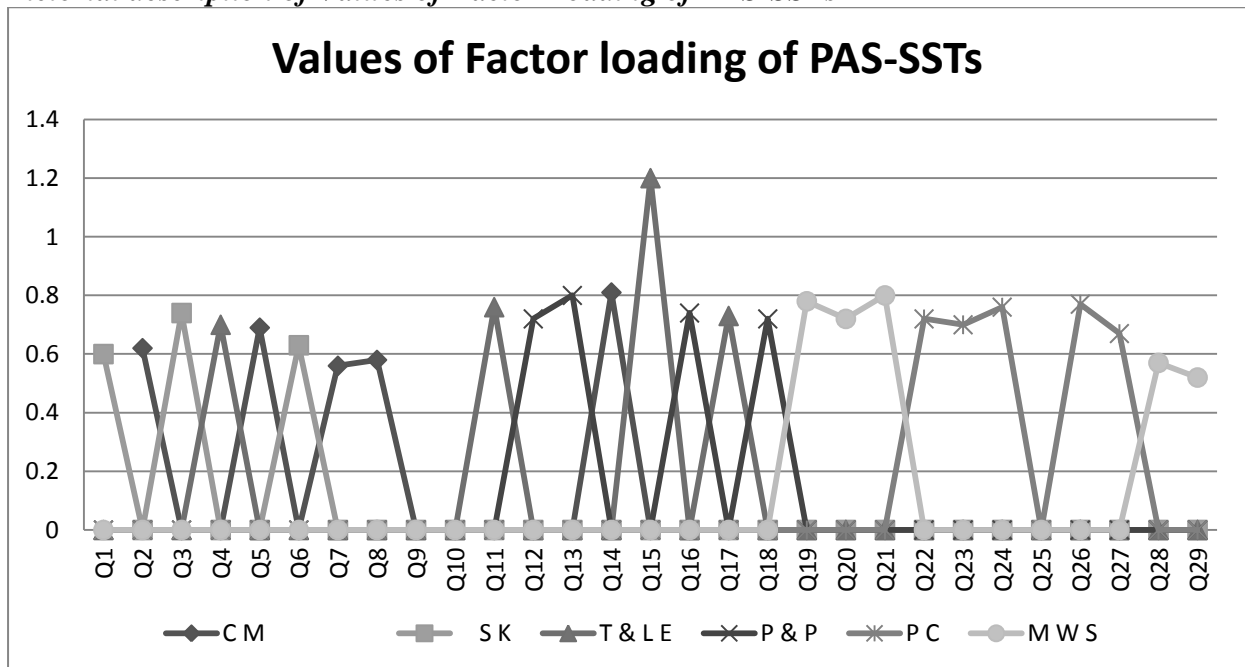
The values in the following table indicate the standardized correlation among said variables.

Table: 4
Correlation with Variable

S. No	Correlation Value	Interpretation
1	≤0.50	Very low
2	0.51 to 0.79	Low
3	0.80 to 0.89	Moderate
4	≥0.90	High Good

Discussion

In recent times, performance appraisal is the backbone of every working sphere. It is an effective tool of Human Resource Management (Kleiman, 2000). The importance of performance appraisal scale has been viewed in the empirical evidences of, Dessler (2008), in which he concluded that Appraisal system plays a vital role in the employee's performance, helping their career planning and also effects the employee's promotion and salary decisions. The main purpose of this study was to develop a tool for measuring the Performance Appraisal Scale (PAS-SSTs) at secondary school level in Punjab (Pakistan) because there is lack of researches in this field. The data were collected from 200 teachers working at public and private secondary schools in Faisalabad division. The samples were collected from 100 public and 100 private secondary school teachers. Items were derived from already conducted related studies and with the help of experts' opinion. These factors play a decisive role in the employee's performance in the local setup. Main factors involved in PAS-SSTs were classroom management, knowledge of subject, learning and teaching environment, planning and presentation, professional conduct and management of work schedule. PAS-SSTs contained 29 items organized and piloted upon 200 teachers from both public and private sector schools. The reliability coefficient (Cronbach Alpha) value was .926. A Confirmatory Factor Analysis (CFA) was used to validate the PAS-SSTs tool. The content and language of the tool are also authenticated by the experts. Each item was well above the thresholds value 0.35 in factor loadings.

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