

**ASSESSING COMPETENCIES OF SECONDARY SCHOOL TEACHERS
CORRESPONDING TO NATIONAL PROFESSIONAL STANDARDS FOR TEACHERS
(NPST) IN PAKISTAN****Gulab Ali**

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Abstract

Present study aimed to assess competencies of secondary school teachers corresponding to two standards namely 'Subject Matter Knowledge' and 'Assessment' specified in National Professional Standards for Teachers (NPST) in Pakistan. The levels of teachers' competencies in area of 'subject matter knowledge' and 'assessment' perceived by teachers themselves and their students were calculated and a gap was also assessed between teachers' and students' perceptions. Teaching competencies refer to the skills that teacher practice in their classroom which is required to make teaching-learning process more productive. Using qualitative approach with survey design, questionnaires consisting of 8 items for competencies of subject matter knowledge and 9 items for assessment was developed both for teachers and students and validated through expert opinion where Cronbach's Alpha reliability of teachers' and students' instruments was 0.76 and 0.84 respectively. Sample was selected by using multistage random technique consist of 100 teachers and their 300 students in secondary schools of Lahore District. Results revealed that teachers perceive that they have 'subject matter knowledge' and 'assessment' competencies of medium and low level. Their students' also have same perceptions. In comparison of public and private school there was a gap of perceived level of 'assessment' competencies where students of private schools perceive their teachers more competent than public school teachers. Elective subject teachers think that they are more competent in assessment competencies than compulsory subject teachers vice-versa compulsory subject students perceive their teachers more competent in assessment. It is recommended that teachers' competencies specified in NPST must be assessed

by using alternative methods other than perceptions along with continuous training to enhance these competencies.

Keywords: Teacher, Professional standards, Competencies, Students

Introduction

Education is a tool to bring change and improvement as scientifically, economically and culturally in the society. In the whole education system, all activities are done by the help of teachers, so the teacher remain at the central point in the whole teaching-learning process (Darling-Hammond, 1998). Competency refers to the abilities required by an individual to perform certain task. In broader way, competence refers to a set of abilities, knowledge, and attitudes demonstrated in a certain situation (Mulder, 2014). Competency further more clarifies that it assimilates the inventive capabilities to face difficult circumstances and to manipulate situations that are becoming hurdles (Woodruff, 1993). When we consider teacher as change agent, he/she must require certain type of competencies.

According to Jackson (1990) the specific skills and knowledge that make a teacher productive are teaching competencies. Competence manages two primary settings, teacher education and training, and his professional performance during his teaching. A wide and diverse range of teacher qualities are required to improve student skills, capabilities and ensure students for better learning and helps in decision making regarding everyday life. Competent teacher requires basic primary necessities which include abilities, knowledge, attitude as well as education. Teachers can improve their performances through making the better management of the classroom and by giving informative instructions to the students. Many researchers worked on this topic have reached to the conclusion that teachers are considered as more influential in student achievement amongst all factors which affect pupil achievement (Sanders & Rivers, 1996).

However, there is an opposition between the competencies of teachers and desired outcomes in terms of student achievement. Despite the fact that authorities are aware of teachers' role which they are playing to teach students, thus they developed professional standards for instructors that help teachers to be planned before presenting themselves in front of their students. Specific outcomes are expected to draw from these standards. These standards help teachers in effectively using ICT skills, resources and materials, their knowledge and assessment skills.

Pakistan government main agenda is to maintain the quality education. For the provision of quality education, Ideal Teachers are needed which are enough competent to keep the pace towards development of the country. In the National Education Policy of 2008, education and training of teachers is significant component, whereas for the purpose of providing assistance in this regard, Ministry of Education policies and strategies are working with UNESCO. The expectations of quality characteristics from the teachers are known as "Teacher Standards". Standards examine what is expected of instructors in terms of their knowledge and practice (Ingvarson, 1998). Pakistani Ministry of Education developed a trait chart as National Professional Standards for Teachers in Pakistan (NPST) for a perfect teacher (Feb 23, 2009). Ten standards were developed by Ministry of Education Pakistan, in collaboration with USAID and UNESCO in 2009. These standards were aimed to assess the performance of teachers and also act as

benchmark of teachers' competencies. Students who decided their future as teacher can also utilize it as aim chart for being develop skills that are required to be a teacher in future.

Assessment of teacher's competencies is possible. Some competencies required equal skills, knowledge and attitudes while other doesn't. In some competencies more knowledge is needed that plays a pivot point in becoming master while other may require more practical and analytical skills. For the purpose to evaluate these competencies, standards are formulated that act as road map for teachers in teaching and learning process. According to Ingvarson (1998), standard and competencies are two different things related to teachers and where teachers challenge to compare the specialist knowledge, skills and practices. Professional standards of teachers ensure that they are skilled with practicing their knowledge and understanding about their contents. Every society's education system has framed regulations and established standards for their teachers for the purpose of making them as professional educators and to play their role in change process. Standards act as tool for professional judgment in terms of shared goals and values context (Sykes & Plastrik, 1993). These standards act as road map for teachers for enhancing their competencies and collectively contribute to the overall performance of the institutions and their quality.

This study focused to understand and assess competencies of secondary school teachers in Lahore. Established standards are framed for teachers, not especially for secondary school teachers, therefore these are taken to fulfill the desire in some way. In NPST, each standards contains three parts: 1) *Knowledge*-content knowledge, latest trends in the subject, latest theories etc., 2) *Dispositions*-incorporate knowledge with real world, develop self-confidence in their students etc., 3) *Performance and skills*-effectively deliver knowledge, use variety of methods to deal with diverse students. In general assumption, teachers of secondary schools are aware about these professional standards and practicing them in their daily teaching. It was made sure by investigating from teachers that they practice the competencies that required by professional standards. Students' views were also taken about their teachers' competencies. This investigation will help both students and the teacher's interaction in a well effective teaching learning manner. Current study will also apprise regarding effective variations in teacher education and training to the policy makers. This study will be significant for enhancing the quality of education by assessing competencies of the teachers. Furthermore, the study will also guide research in future on these investigations that will result in further development. This study will be significant for massive assessment of the competencies of teachers as it provides a tool for that assessment.

Teacher Mastery over his/her Subject

The main focus of a teacher is to clear the concepts and understanding of their content to the students as he has mastery on his subject. Therefore, every teacher should know that how to teach and what to teach with appropriate knowledge and understanding of their subject and should make their content flexible for all learners. According to NPST, subject matter knowledge includes; teacher should be aware of latest trends, ideas and theories in the subject, incorporate the subject with other subject and also with real life.

Assessment Competencies of Teachers

Assessment includes those procedures that taken by the teachers to measure and check student learning during the course of studies (Miller, Linn & Gronlund, 2009). It gives judgmental

measurements about where the student performance is standing. According to NPST, teacher should be competent in using wide variety of assessment techniques like: assigning presentations, projects and homework, using objective and subjective type tests and provide feedback to students about their performance.

Assessment involves;

- Students learning activeness
- Grading through the student performance
- Impact of fairness and academic discipline on students.
- Students' concentration and time

- Knowledge that includes both the course and the disciplinary subjects in addition to the course.
- Providing feedback on student's performance

Statement of the Problem

This study was aimed to assess competencies of secondary school teachers in reference to the established standards. It will provide a road map to assess the competencies and professional development of the teachers.

Objectives

1. Assess level of teacher's competencies in area of 'Subject Matter knowledge' and 'assessment' corresponding to National Professional Standards for Teachers (NPST) in Pakistan as per teachers' self-appraisals
2. Assess level of teacher's competencies in area of 'Subject Matter knowledge' and 'assessment' corresponding to National Professional Standards for Teachers (NPST) in Pakistan as per their students' rating/ perceptions.
3. Identify the gaps between teachers' and students' perceived competencies.
4. Study the difference between teachers' competencies as perceived by teachers and students with reference to categorical variables e.g., school type and subject type.

Delimitation of the Study

One limitation of current study was related to the location as its sample was only schools of Lahore that may be a factor of its generalizability decreasing. Only 10 numbers of secondary schools in the Lahore district were selected as sample which is limited. Out of total 10, for this study subject matter knowledge and assessment standards were focused.

Operational Definition

1. *Teaching Competencies*-refer to the skills that teacher practice in their classroom which are required to make teaching-learning process more productive.
2. *National Professional Standards for Teachers (NPST) in Pakistan*- refer to those ten standards that are framed by Ministry of Education, Pakistan in 2009.

Methodology

In social sciences, especially in education the positivist paradigm is frequently used methodological choice of the researchers in recent times. Behind the current study, positivism paradigm was come in occurrence. In this study, quantitative descriptive design of research based on positivist approach is used to investigate the research problem. Findings were inquired by using survey method. Rationale that was behind using the survey method was to achieve study purpose and to answer research questions.

Population and Sample

Teachers and students of secondary schools of Lahore district were the population of this study. Multistage random sampling technique was used in this research. By using cluster random sampling, researcher selected ten secondary schools in Lahore district. In second stage, ten teachers and 30 students from each school was randomly selected for data collection. A total of 300 student and 100 teachers of secondary schools in Lahore was the sample of study.

Research Instrument

For data collection purpose, researcher developed a survey questionnaire of five-point Likert-type Scale for data collection about the opinions of teachers and students about competencies of teachers based on NPST in Pakistan. From ten standards, only two standards were taken and competencies are converted into measurable actions that can be assessed by questionnaire. Experts' opinion was taken to validate the questionnaires, they were asked to rate each item whether it is essential and useful. On the basis of the rating, 17 items of teachers' questionnaire and 17 items of students were retained and others were deleted. SPSS-25 software was used for data analysis.

For the purpose of reliability, Cronbach's Alpha value was found out of both teachers' and students' questionnaires by using SPSS. Values of Cronbach's Alpha internal consistency reliability of teachers' questionnaire was .76 and students' questionnaire was .84.

Table 1: Cronbach's Alpha Reliability Values of Teacher and Student Questionnaires

Questionnaire Type	No. of Items	Cronbach's Alpha Value
Teacher Questionnaire	17	.76
Student Questionnaire	17	.84

Data Collection and Analysis Procedures

The range of responses was from 1 to 5, where 1 as lower and 5 as higher score. Further competency level of teachers was interpreted as low whose average of scores was below 3 as

perceived by the teachers. While average score of 3-4 was labeled as medium. Teachers' average score of above 4 as perceived by teachers was interpreted as they possess high competency level.

Table 2: *Brief Interpretative Guidelines for Teachers' Competency Levels as perceived by teachers and students*

Range	Guideline
Below 3	Low
3-4	Medium
Above 4	High

Descriptive Statistics of Categorical Variables

Table 3: *Frequencies of Teachers with reference to Categorical Variable School Type*

	School Type		Subject Type		Total
	Public	Private	Compulsory	Elective	
Teachers	90	10	44	56	100
Students	270	30	100	200	300
Total	360	40	144	256	

The above table present that out of 100 total, 90 were public and 10 were private school teachers, and 44 were compulsory and 56 were elective subject teachers. From total 300 students, 270 were public and 30 were private school students, and 100 were compulsory and 200 were elective subject students.

Data Analysis and Interpretation

Explore the competencies level of teachers corresponding to NPST as per teachers' self-appraisals

Table 4: *Competency Level of Teachers as Perceived by Teachers*

Variables	Levels		
	Low	Medium	High

Subject Matter Knowledge Level	6 (6%)	46 (46%)	48 (48%)
Assessment Levels	2 (2%)	66 (66%)	32 (32%)
Total Teachers' competencies Level	2 (2%)	58 (58%)	40 (40%)

The results revealed from the above table 4.1 shows that 48% contains high while 46% of teachers lie in medium level with a percentage of 46% and only 6% of teachers possess low level of their subject matter competency as perceived by the teachers. A percentage of 66% teachers have medium and 40% have high assessment competencies. About 58% teachers think that they have medium competency level and 40% fall in high level.

Explore the competencies level of teachers corresponding to NPST as per students' rating

Table 5: Competency Level of Teachers as Perceived by Students

Variables	Levels		
	Low	Medium	High
Subject Matter Knowledge Level	41 (13.7%)	138 (46%)	121 (40.3%)
Assessment Level	72 (24%)	175 (58.3%)	53 (17.7%)
Total students score Level	45 (15%)	165 (55%)	90 (30%)

The results shows that 40.3% of students respond that their teachers possess high level of subject matter knowledge competency while 46% as medium level and 13.7% as low. Majority of 58.3% students score medium level of assessment competencies while 24% as low and 17.7% as high. Total 55% student score medium, 30% high and 15% low overall competency level of their teachers.

Identify the gaps between teachers' and students' perceived competencies level

Table 6: Competency Level of Teachers as Perceived Teachers and students

Variables	Respondent	Levels		
		Low	Medium	High
Subject Matter Knowledge Level	Teacher	6 (6%)	46 (46%)	48 (48%)
	Student	41(13.7%)	138(46%)	121(40.3%)

Assessment Level	Teacher	2 (2%)	66 (66%)	32 (32%)
	Student	72 (24%)	175 (58.3%)	53 (17.7%)
Total Teachers' competencies Level	Teacher	2 (2%)	58 (58%)	40 (40%)
	Student	45 (15%)	165 (55%)	90(30%)

Table compares the percentage of teachers and students' perceptions about certain level of competency of the teachers. From the above table it is evident that major gap between teachers and student perception is about low and high level of assessment and overall competencies of teachers as 2% teacher but 24% student marked low while 32% teacher and 17.7% student marked high competency level of teacher. Only 2% teacher but 15% students perceive low whereas 40% teachers and 30% students perceive high overall competency level of teachers.

Study the difference between teachers' competencies as perceived by teachers and students with reference to categorical variables e.g., school type and subject type.

Table 7: School-Wise Comparison of Competency Level of Teachers as Perceived by Teachers

Variable	School Type	M	SD	df	t
Subject Matter Knowledge	Public	32.28	4.07	98	.351
	Private	31.80	5.13		
Assessment Competencies	Public	34.13	4.14	98	-3.951*
	Private	39.50	3.34		
Total Teacher Competencies	Public	66.42	6.88	98	-2.124*
	Private	71.30	7.02		

Note. * $p < .05$

Independent sample t test was applied to compare the mean of teacher's competency level of public and private schools. Table shows that public school teachers' mean score ($M = 32.28$, $SD = 4.07$) is not significantly different than that of private school teachers' ($M = 31.8$, $SD = 5.13$), $t(98) = .351$, $p = .726$ on subject matter knowledge competency. The results of the above table are also evident that there is a significant difference between public school teachers' mean score ($M = 34.13$, $SD = 4.14$) than that of private school teachers' ($M = 39.50$, $SD = 3.34$), $t(98) = -3.951$, $p = .000$ on assessment.

The results shows that on overall competency level public school teachers' mean score ($M = 66.42$, $SD = 6.88$) is significantly different than that of private school teachers ($M = 71.30$, $SD = 7.02$), $t(98) = -2.124$, $p = .036$.

Table 8: Subject-Wise Comparison of Competency Level of Teachers as Perceived by Teachers

Variable	Subject Type	M	SD	df	t
Subject Matter Knowledge	Compulsory	31.97	4.56	98	-.558
	Elective	32.44	3.84		
Assessment Competencies	Compulsory	33.59	5.34	98	-2.235*
	Elective	35.51	3.20		
Total Teacher Competencies	Compulsory	65.57	8.58	98	-1.713
	Elective	67.96	5.32		

Note. * $p < .05$

Table 4.17 shows that compulsory subject teachers' mean score ($M= 31.97$, $SD= 4.56$) is not significantly different than that of elective subject teachers' ($M=32.44$, $SD=3.84$), where $t(98) = -.558$, $p= .578$ on subject matter knowledge. On assessment competency, compulsory subject teachers' mean score ($M= 33.59$, $SD= 5.34$) is significantly different than that of elective subject teachers' ($M=35.51$, $SD=3.20$), $t(98) = -2.235$, $p= .028$. Upon total competency level, compulsory subject teachers' mean score ($M= 65.57$, $SD= 8.58$) didn't significantly different than that of elective subject teachers' ($M=67.96$, $SD=5.32$), $t(98) = -1.713$, $p= .090$.

Table 9: School-Wise Comparison of Competency Level of Teachers as Perceived by their students

Variable	School Type	M	SD	df	t
Subject Matter Knowledge	Public	30.59	5.34	298	-4.427*
	Private	35.06	4.28		
Assessment	Public	30.94	6.60	298	-2.077*
	Private	33.56	5.99		
Total Teacher Competencies	Public	61.54	10.72	298	-3.465*
	Private	68.63	9.75		

Note. * $p < .05$

Independent sample t test was applied to compare the mean of students' perception about their teacher's competency level of public and private schools. Table shows that public school students' mean score ($M= 30.59$, $SD= 5.34$) is significantly differ than that of private school students' ($M=35.06$, $SD=4.28$), on subject matter knowledge $t(298) = -4.427$, $p= .000$ on subject matter knowledge competency. There is also a significant difference between public school students' mean score ($M= 30.94$, $SD= 6.60$) and private school students' ($M=33.56$, $SD=5.99$), $t(298) = -2.077$, $p= .039$ on assessment.

From the results it is evident that on total competency level of teachers there is significant difference in perception between public school students' mean score ($M=61.54$, $SD=10.72$) and private school students' ($M=68.63$, $SD=9.75$), $t(298) = -3.465$, $p = .001$.

Table 10: Subject-Wise Comparison of Competency Level of Teachers as Perceived by their students

Variable	Subject Type	M	SD	df	t
Subject Matter Knowledge	Compulsory	31.57	5.47	298	1.194
	Elective	30.78	5.37		
Assessment Competencies	Compulsory	32.37	6.84	298	2.170*
	Elective	30.63	6.39		
Total Teacher Competencies	Compulsory	63.94	11.67	298	1.917
	Elective	61.41	10.3		

Note. * $p < .05$

Independent sample t test was applied to compare the mean of students' perception about their teacher's competency level of compulsory and elective subject students. Table shows that on subject matter knowledge, compulsory subject students' mean score ($M=31.57$, $SD=5.47$) is not significantly different than that of elective subject students' ($M=30.78$, $SD=5.37$), where $t(298) = 1.194$, $p = .234$. Furthermore, there is significant difference exist between compulsory subject students' mean score ($M=32.37$, $SD=6.84$) and elective subject students' ($M=30.63$, $SD=6.39$), where $t(298) = 2.170$, $p = .031$ on assessment.

Results reveals that on overall competency level of teacher there is no significant difference exist in perception of compulsory subject students' mean score ($M=126.2$, $SD=24.72$) and elective subject students' ($M=121.78$, $SD=21.65$), $t(298) = 1.588$, $p = .056$.

Conclusion and Discussion

Despite the fact that NPST in Pakistan are not separately formulated for secondary school teachers, but these are guiding tool for the teachers to make their teaching more effective that help in achieving the desired outcomes in the form of student achievement. According to Shaukat & Chowdhury (2020), standards in Pakistan are not compliant with our context but these can be helpful to achieve desired outcomes when practiced and implemented effectively. When these standards will be properly implemented, these can draw outcomes which can aid in development of teachers as well as of students. But it was concluded from the findings that these standards are not properly implemented in secondary schools of Pakistan which may be a factor that hinder in achieving the desired targets of the government from secondary schools. It also affects our education system and in general, the development of the whole country. Lack of proper implementation of NPST is also affecting the secondary school students' future and proper development of their abilities in Pakistan. It was concluded that majority of the teachers have medium level of competencies which doesn't meet the desired standards. Khan, Sharjeel and Kiazai (2020) reported that the standards are not meeting the needs of the current fast-growing

world and these needs to be revised. Modern demands of the society also make it compulsory to revise the standards time to time and implement properly to contribute in the change process.

Study was conducted to assess the competencies of the secondary school teachers about subject matter knowledge and assessment standards competencies. The results of the analysis showed that majority of the teachers think that they have high level subject matter knowledge competencies; some also fall below high level. The current study findings also evident by the findings of Akram et al. (2015), majority of the teachers think that they have subject matter knowledge related competencies up-to proud level with reference to NPST in Pakistan. It can be drawn from these findings that the teachers perceived that they have high level of subject matter knowledge. The possible reason behind that is the similarities of the context as both studies were conducted in secondary schools of Pakistan which are govern by same provincial government. Assessment has an important place in the whole teaching learning process and teachers are expected to have high quality competencies related to assessment. But the findings were somehow against the expectations as majority of the teacher perceive they possess medium level of assessment and total competencies level. Mango (2013) also reported that teachers fall in average competencies related to assessment of their student performance with respect to standards.

Teacher competencies were also assessed from students' perspective. It also provides opportunity to the researcher to cross match the perception of teachers and how they actually implement their skills during their teaching by asking from their students. Findings revealed that majority of the teachers fall in medium level in reference to their content knowledge, assessment and total competencies level from the perspective of their students. According to the teachers, they have below high competencies of subject matter knowledge. This shows that there is a gap in between the perception of both, the teachers and the students. Ayalew, (2016) also reported same findings that students perceive that their teachers have medium competencies related to the assessment and there is also a gap in between the perception of the teachers and students.

In general perception teachers of public schools are considered as more competent than private schools as they are more qualified, more trained and appointed through a proper evaluation and testing. Researcher took t-test to find out the difference in perception of teachers and students of public and private schools and compulsory and elective subjects about the competencies of teachers. In the current study, findings evident that private school teachers perceive themselves more competent in assessment than public school which give rise to a new question that despite proper training and high qualification, public school teachers show fewer competencies in assessment than private school teachers. While in other content knowledge both groups did not differ significantly on their perception. The results supported by a study conducted by Parveen, Nazir and Zamir (2021) reported that private school teachers perceive that they are more competent than that of public-school teachers. Possibility of coming same results was the similarity of the type of schools as both studies were conducted in secondary schools in Pakistan. Another study by Rubab and Awan (2020) also reported that public school teachers are more qualified and possesses high quality teaching skills. Furthermore, it was found in the results that elective subject teachers think that they are more competent in assessment competencies than compulsory subject teachers. While in reference to content knowledge and total competency level compulsory and elective subject teachers did not differ in their perception.

Like private school teachers, their students also think that content knowledge, assessment and overall competencies level of their teachers is more than public school teachers. Private schools follow the timelines of the assessment and also use variety of the ways i.e., class tests, laboratory practical, monthly and quarterly tests and during lesson assessment to assess their students' performance which may be a factor to make them more competent than public schools. Compulsory subject students think that their teachers are more competent in assessment skills as compared to elective subject students whereas both type of students didn't differ in their perception about subject matter knowledge and total competencies level of their students. Olurenfemi-Olabisi (2013) reported that compulsory subject students respond that their teachers hold proficiency over assessment skills. The study was also conducted in secondary schools of a developing country using descriptive design which may be the possible reason of same findings. Teachers are the source of transmitting knowledge so they should perform according to expectations and standards.

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