

## **A Study of Prospective Teachers' Professional Knowledge and its Practice at Secondary Level**

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### **Abstract**

The study aimed to investigate the prospective teachers' professional knowledge and its practice at secondary level and to examine the impact of different factors that affect the professional knowledge and its practice. All the 210 prospective teachers (students) of B.Ed and M.Ed, programs of Northern University Nowshera constituted population of the study. A sample of 105 prospective teachers of B.Ed and M.Ed programs were randomly selected. A questionnaire was used as data collection instrument. The collected data was analyzed through Chi square. On the basis of findings it was concluded that the teachers can improve the students' academic performance by advising them to study additional text related books. It was also found that sharing of problems with teachers can solve many problems of students. So it is recommended that teachers should guide their students to study subject related books for further clarification of concepts and it is also recommended that the teachers must provide guidance and counseling to the students regarding (personal problems).The study was significant for all stakeholders in education including teachers, students, educational authorities and policy makers.

**Keywords:** Professional Knowledge, Practices, Prospective teachers

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## **Introduction**

Acquisition of professional knowledge through various teacher training programs enables teachers to teach professionally as compared to untrained teachers. During the conduction of teacher education programs, these prospective teachers try to learn different methods and techniques of instruction that help them in their teaching profession. Teacher training programs should be a model to guide them through different phases; some of which might be difficult. The knowledge that is acquired in these teacher training programs needs to be implemented and furthermore should develop appropriate skill and attitude. Teachers who are new to the profession usually face problem when they practically face educational problems (Flores, 2006). Therefore a prospective teacher needs to polish him/herself in order to handle any problem confronting him/her. Teacher's quality is directly proportionate to quality education. To bring quality in education it is highly recommended to recruit energetic, focused, visionary and highly qualified teachers. The teacher training programs should be carried out in such an environment which is supportive for academic as well as research orientation. The views of different educationists about professional knowledge vary. According to (Maijer, et. al., 1999) those teachers who are well qualified are always successful at handling different situation in the field of teaching learning. They are good just because they implement their knowledge or what they have in their minds. Similarly what teachers do is a representation of the knowledge that they have gained or learnt in their respective professional trainings.

Teacher is the agent of qualitative change and can raise the standards of education that ensure progress and prosperity of a nation (Government of Punjab, 1998). Professional knowledge makes a teacher aware of his/her subject contents and the ways through which s/he transfers the teaching contents to his pupils. The availability of professionally qualified teachers in a school can ensure best academic achievements. According to Meijer, et al (1999) "professional knowledge" is a multidimensional subject. One of the perspectives of professional knowledge is command on the subject which is a key for effective teaching, Secondly, understanding the psychology of learners during teaching. The third most important principle of teacher's professional knowledge is teaching methodology. Ernest (1989) states that in the choices of teaching methods and approaches pedagogical knowledge plays a central role and similarly this knowledge is also essential in lesson planning. According to Nadkarni (2003) a properly planned and organized method of instruction should be in the hands of a

teacher while he or she teaches. Next there is the school curriculum, general pedagogical knowledge, knowledge of context, knowledge of self and finally there is professional practice. According to Kagan (1992) the knowledge of "self" determines the very way of teacher's role in the imparting of education. The knowledge of self covers all the areas of teacher's professional practices and actions i.e. responsibilities, training and other related and necessary qualifications and skills. To sum up, teaching is a profession and teachers should be equipped with enough professional knowledge in order to make them well equipped for their job. This poses a very pertinent question that "Do the teachers agree to the statement that professional knowledge assists in improving their teaching practice."

### **Literature Review**

The aim of the literature review is to throw light and highlight work that is related to the topic of the study. In Professional knowledge teachers know the subject matter and methods i.e. the way to impart inner self to students. The main aim of teachers is not only to teach but also to know how to teach and polish manners of the learners. Like all other activities education will be fruitful if teachers' concentrate on professional knowledge and its practice. Van Es and Sherin (2008) states that if teachers get sufficient knowledge of classroom issues, they will surely be successful at analyzing the situation of classroom. Thus it is highly requisite to develop such an environment which is helpful and supportive for teacher training. To think about teaching and learning in a more deep and considerate way is a skill and in order to develop this skill there is a need to prioritize it in the courses of teacher education programs. In today's modern world of science and technology the profession of teaching has also become more systematic, logical and objective. Today's teachers must possess subject or content knowledge and teaching expertise if they really want to be effective. Their professional knowledge and particularly its application is given great importance in the field of education and along with this some other distinctive aspects of teaching are given priority in the training of teachers in Pakistan. The basic qualification of a teacher is a set of information which helps in his/her performance and practices, Birman, et al. (2000). The role of teacher's is central to education as described by Gupta, (1996). Teachers must transfer cultural heritage which includes skills, knowledge, customs, social norms, attitudes which are acquired by the society in past extensive period. They must try to develop the element of adaptability in learners as world is rapidly changing. The

effective teacher must possess the ability to motivate students for learning. Therefore, professionally equipped teachers ensure best academic achievements of students (Gupta, 1996).

Education takes place as a dual process of gaining experience and giving knowledge i.e. either we take it or give it. This process is done for the sake of learning. A teacher is a person who conveys or transfers knowledge to others. Teacher is a professional who needs to know the art of communication. Spiegel (2005), states that discussion in class has proved vital for learning. Everyone knows the significance of communication and due to this it is considered an essential element of both teaching and learning. Discussion allows us to express ourselves and explore other. The main aim of classroom discussion in class is to increase the confidence level of learners to interact or express. It is also used to entertain learners when they are bored with routine lessons or lectures. The nations which have taken major initiatives in education system have made revolutionary advances and have performed miracles in the last couple of decades. No doubt this great achievement is based on their effective education system (Ahmad, 2001). It is proved that education decides the prosperity of a country. If a country wants to survive, then it needs to have standard education system (Saeed, 2001). Iqbal (1996) stated that teaching is the management and judgment of situations in which there are shortcomings on the part of the learner who tries to overcome the shortcomings which we call learning. The role of teachers as supervisors was recommended by the UNESCO (1975). The recommendation states that teachers and administrators/management of all levels should be aware of the role they play in the educational context today. The recommendations suggest that the teachers should be aware that their roles and behavior must not be fixed. They must be adapted according to the changes taking place both in society and in education system.

Teaching is a procedure in which there is a friendly interaction between a teacher and the learner. In the process, the teacher is the learned person who conveys knowledge to a person who does not possess the knowledge. To bring improvements in education, the status of the teaching profession needs to be reformed. This should be done in order to attract respectable and highly qualified individuals to the system of education. Moreover, advance levels of professional trainings are highly inevitable if we want to bring positive changes in education. Effective teachers own their students and possess sufficient knowledge about their students. They know not only about their curricular but also about their co-curricular excellence and attachments. The teachers, who

have contacts with the family members of the students, can control the students very easily and effectively. Effective teachers have full command on their subjects. According to Ellie et al., (2012), teaching approach of a teacher that is friendly positively affects the behavior and personality of learners. It boosts the confidence level of students to face any academic challenge.

There are certain pre-requisite which have great impact on the development and professional growth of teachers. It comprises of necessary requirements for teaching, practice standards and methods of assessment. No teacher or person can claim himself or herself as complete. This is because numerous changes are taking place both in teaching and learning therefore, it is almost impossible to keep one fully updated with the current trends and needs.

Professional knowledge helps in the improvement of teaching methodologies of all those subjects which are taught by teachers. The pedagogical content knowledge and curriculum studies are the two basic components of professional studies (Shulman, 1986). This also helps in the understanding of students' psychology. The teachers get knowledge about the contents they teach to students. The teacher training programs normally covers the contents, teaching methods and teaching practices. But in the area of pedagogy a lot is to be done yet. Professionalism is a distinguishing feature of an individual in an occupation. It also means some special skills in the field of knowledge and specialization. This is the application of knowledge of an individual and on the part of a teacher this is very much necessary as it sets a climate for proper teaching and learning. According to Fishman et al, (2003) professional developmental programs will bring a positive change in the extrinsic behavior of the teachers and they will move towards a better and effective teaching model and practice. According to Buczynski and Hansen (2010) successful teachers must bring into practice their professional experiences and knowledge. Professional development of teachers must be based on ground realities and practices. Goodson (1997) say that the basic function of such development is the improvement. He further states that such programs must be research and practice based. These programs keep the teachers aware of subject matter, teaching methodologies, instructional strategies, societal changes and all the teaching practices and education. To make a teacher best or efficient it is very important that all the existing professional courses for teachers must be reconsidered in order to change the current status of teacher to a better teacher. Properly trained teacher will ensure to provide quality and

standard teaching or education which will be seen in the form of quality of education of the coming generation.

### **Objectives of the study**

- 1 To investigate the prospective teachers' professional knowledge and its practice at secondary level.
- 2 To examine the impact of different factors that affects the professional knowledge of prospective teachers and its practice.

### **Significance of the Study**

The findings of the study will be of great significance to both working teachers and prospective teachers at secondary schools in a sense to utilize professional knowledge and to make it an effective tool for achieving targets of creation of good students. The study will also be beneficial for curriculum developer bodies of teacher education in bringing positive improvement.

### **Methods and Procedure**

The study was aimed to investigate the views of prospective teachers about professional knowledge and its practice and to be aware of the worth of prospective teachers' Professional knowledge and its practice. The study was descriptive and quantitative in nature; therefore, survey design was applied in order to seek responses of participants.

### **Population**

The population of the study comprised of all the 210 male prospective teachers of B.Ed and M.Ed, classes in Northern University Nowshera.

### **Sampling**

Looking at the nature of population of the study, random sampling technique was used for selecting the sample. In this way a sample of 105 prospective teachers (the students of) B.Ed and M.Ed programs of Northern University Nowshera were randomly selected.

### **Research Design and Instrumentations**

The study was descriptive and quantitative in nature; therefore, survey design was applied in order to seek responses of participants, a questionnaire was used. The questionnaire consisting 12 items was used for getting data from prospective teachers.

### **Validity**

Before administering the questionnaire on the sample validity of the instrument was checked by the opinions of the educational and subject specialists in order to remove ambiguity of the items. Consequently, some items were found irrelevant and were replaced. Some items were rephrased to make them more understandable. Then the questionnaire was finalized in the light of suggestions given by the experts for administration.

### **Pilot Testing**

#### **Reliability**

Reliability of the research instruments was checked after pilot testing. The reliability of questionnaire was calculated by using split half method and reliability co-efficient was found to be 0.78 which was satisfactory.

### **Data Collection**

Data was collected through personal visits as the population was near to the researcher. Before distributing the questionnaire, proper permission was taken from the university administration. A total number of 105 questionnaires were distributed among prospective teachers and were collected on the same day.

### **Data analysis**

The collected data were analyzed by using chi-square. The interpretation and conclusions were drawn on the basis of support when the value found is greater than the table value ( $\chi^2 = 5.99$ ) at 0.05 level of significance and not supported, when the calculated value was found less than the table value.

### **Analysis of the responses**

Responses of the prospective teachers were analyzed through Chi-square test and results were interpreted and conclusions were drawn according to the findings of the study.

Table 1  
*Teachers' professional knowledge and its practice*

Prospective Teachers Statement	Mostly	To some extent	Not at all	$\chi^2$
Teachers apply their professional knowledge in teaching	52	51	2	46.67
Professional education is the source of change behavior	86	18	1	127.69
Teachers know the psychology of students.	38	55	12	26.78
Teachers involve their students in learning process.	57	39	9	33.58
Teachers add new information to basic contents	42	51	12	23.82
Teachers use additional material during teaching	31	52	22	13.52
Teachers suggest additional study to students.	41	48	16	16.15
Teachers involve their students in discussion	48	49	8	31.24
Teachers know individual differences of students	34	52	19	15.58
Teachers discuss class room problems with students	42	53	10	28.50
Teachers share students' problems with them.	36	49	20	12.04
Teachers' contact parents regarding the progress of students	45	44	16	15.47
Table value at 0.05	df=2	Table value=5.99		

Table 1 shows that for all the statements the calculated values were found to be greater than table value ( $\chi^2 = 5.99$ ) at 0.05 level of significance, Hence all the statements were supported.

According to the responses of the prospective teachers they should apply their professional knowledge in teaching. They opted that professional education is the source of change in behavior. They held the view that teachers should know the students psychology. The teachers agreed that they should involve their students in learning process and add new information to the basic contents. Most of the respondents agreed



that teachers should use additional material during teaching and suggest additional study to students. They agreed to the statement that they should involve their students in discussion and should be aware of students' individual differences. They responded that they should discuss and share class room problems with students. This would be helpful for the teachers in providing timely feedback to contact parents regarding the students' progress.

### **Discussion**

Regarding progress of the students the views of Sybouts (1994) are supporting the results of the researcher. Majority of the respondents were of the view that teachers applied their professional knowledge in teaching. The same idea is supported by Bridgett (2008) "the teachers apply their professional knowledge in classroom while teaching to students". The study revealed that the behavioral change of teachers while teaching in the class generated the ability of the teacher's professional knowledge. Ellie et al., (2012), has also suggested the idea of behavioral change due to professional education. Majority of the respondents expressed that the teachers know the students' psychology due to professional knowledge. The result of the study is in consistency with the Shulman (1986) views. The study identified that teachers involve their students in learning process for discussion and know about student's individual differences. The results from the data are in support of the views of Meijer et al (1999).The results of the study showed that teachers add new information to the basic contents of the lesson. The results from the data are in support of the views of Sybouts (1994).The study identified that teachers use additional material during teaching and suggest additional study to the students in class room. The results of the research are also supporting Shulman (1987).The study revealed that teachers involve their students in discussion. The results support the views of the Spiegel (2005).The study identified that teachers discuss and share class room problems with students' in order to help and assess them in their problem solving.

### **Findings and Conclusions**

Findings of this study revealed that the teachers depend on their professional knowledge in teaching therefore; the teachers must be professionally qualified and should be equipped with latest knowledge of the field. The present study shows that professional education is the source of change in behavior of the teachers therefore, professional

qualification is necessary for the teachers to change their behavior. The study identified that the teachers know the psychology of students and involve their students in learning process therefore; the teachers must be professionally qualified to be aware of the psychology of their students. The study identified that respondents were of the view that teachers add new information to basic contents, use additional material during teaching and suggest additional study to students. The present study revealed that teachers involve their students in discussion and know about students individual differences showed the application of professional knowledge and its practice. The study also illustrated that teachers discuss classroom problems and share students' problems too which leads to fruitful atmosphere of discussion for solving classroom problems and knowledge about students personal problems by sharing with them. The present study further showed that teachers contact parents regarding progress of the students showing the application of professional knowledge.

### **Recommendations**

- The study revealed that the teachers can improve the students' results by suggesting additional study to students. Therefore it is recommended that teachers should guide their students to study subject related books.
- The results of the study revealed that teachers should ensure to share students problems. It is recommended that the teachers must be trained in how to deal with students' problems.
- The study may provide a background for future researchers in the field of professional development of teachers.
- Teachers must be oriented about proper communication skills in order to appropriately deal with parents, and other stakeholder of the education system.

## References

- Ahmad, M. (2001). To investigate the Causes of Dropout at Higher Level. (Unpublished M. Phil. Education thesis), AIOU, Islamabad, Pakistan. P. 174, 185.
- Birman, B. F., Desimone, L.M, Porter, A. C., & Garet, M. S. (2000). Zsignin professional development that works. Educational Leadership.
- Buczynski, S., & Hansen, C. B. (2010). Impact of professional development on teacher practice Uncovering connection. Teacher and Teacher Education.
- Ernest, P. (1989). The knowledge, beliefs and attitudes of the Mathematics teacher: a model. *Journal of Education for Teaching*, 15, 1, pp. 13-33.
- Ellie L. Young, et al., (2012). Positive Behavior Support in Secondary School. A Division of Guilford Publications. Inc 72 Spring Street, New York NY 10012.
- Fishman, B. J., Marx, R. W., Best, S., & Tal, R. T. (2003). Linking teacher and student learning to improve professional development in systemic reform. *Teaching and Teacher*
- Flores, M. A. (2006). Being a novice teacher in two different settings: Struggles, continuities, and discontinuities. *Teachers College Record*, 108(10), 2021-2052.  
<http://dx.doi.org/10.1111/j.1467-9620.2006.00773.x>
- Goodson, I. (1997). 'Trendy theory' and teacher professionalism. In A. Hargreaves R. Evans (Eds.), *Beyond educational reform: Bringing teachers back in* (pp. 29-43). Buckingham: Open University Press.
- Government of the Punjab. (1998). *The Critical Study of Practice Teaching by Trainee Teachers in Pre-Service*. Directorate of Staff Development Lahore Pakistan. P. 157.

- Gupta, S. M. (1996). *Teacher Education in the Changing Scenario*. Parkash Brothers, Ludhiana, India. P.48.
- Iqbal. (1996). *Teacher's Training*. Institute of Policy Studies and International Institute of Islamic Thought. Islamabad, Pakistan. P. 19.
- Kagan, D. M. (1992). Proportional growth among pre-service and beginning teachers, *Review of educational research*.
- Maijer, P. C, et. al. (1999). Exploring language teachers' practical knowledge about teaching reading Comprehension. *teaching and teacher education*.
- Nadkarni, S. (2003). Instructional methods and mental models of students: An empirical investigation. *Academy of Management Learning & Education*, 2(4), 335-351.
- Saeed, M. (2001). *A Study of Principal as Instructional Supervisor*. Taleemi Zaviyay; Pakistan Education Foundation. Lahore, Pakistan. P. 73.
- Shulman, L.S. (1986). *Those who understand: knowledge growth in teaching Educational Research*.
- Spiegel, D. L. (2005). *Classroom discussion: strategies for engaging all students, building higher-level thinking skills, and strengthening reading and writing across the curriculum*. New York: Scholastic.
- UNESCO. (1975). *Report of International Conference of Education*. UNESCO Press, Janeva. P.87.
- Van Es, E. A., & Sherin, M. G. (2002). Learning to notice: Scaffolding new teachers' interpretations of classroom interactions. *Journal of Technology and Teacher Education*, 10(4), 571-596.