

Developing a Strategy for Linking Theory and Practice in Teacher Education

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<https://doi.org/10.62345/jads.2024.13.1.42>

Abstract

It was a descriptive study to identify the gaps between theory and practice in teacher education. The objectives and hypothesis were formulated for the study, requiring information about the courses that are creating the gap and then making a strategy for filling those identified gaps. There were 220 Govt. girls' high schools in Charsada, Mardan, Nowshera, and Peshawar District. The total number of female senior subject teachers was 1178, and principals was 220. All the teaching faculty members of IER and Qurtaba University Peshawar were also included. All these constituted the population of the study. The study sample was selected using convenient sampling. An opinionnaire was the primary tool of research. The literature review was also an instrument to fit the study in the general framework of research. The results revealed that a thoroughly prepared and well-equipped teacher is needed for a better education system. Despite comprehensive objectives, a gap is still found between theory and practice. The foremost point was that perspective teachers must be taught to work with diverse students. The teachers found it hard to mingle theory and practice with each other. Practical exposure, use of electronic media, making alterations, and modifying teaching methodology according to learners' requirements were also missed features. After discovering the loopholes, the researcher developed a proposed solution in which practicum and action research were given utmost importance and weightage.

Keywords: Action Research, Homogeneous System, Teaching Practice, Teacher Education.

Introduction

The word education is derived from the Latin verb 'educare' that expounds to nurture or look after. This affair of fostering calls for genuine direction and management, so to educate is to guide. In Islamic tradition, procuring knowledge has always been graded as a devout obligation of every Muslim. It is vital in preparing teachers for eventual confrontation in a study room. Its utility for the state is beyond any doubt. It is a breakthrough for professional adolescence.

Walia (2008) remarked proficient education is a significant component of higher education. Teachers are the mainstay of any country. Hence, teacher preparation is a growing possibility and a challenge as well. Okoro (2013) states teacher training targets achieving school education goals and teaching according to learning and teaching principles. A strong educational system is built upon the professional preparation of teachers. Pre-service training is delivered to dig the potential and level of competency to ensure effective teaching.

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The researcher was passionate about studying the mechanism of this course of study in-depth and, subsequently, shaping a relationship between theory and practice. It can only improve with the collaboration of teachers. It is of utmost necessity that the knowledge gained be applied practically in teaching. They are coached about planning a lecture and keeping up the plan. While they are going through learning face, they brace novel models and charts for scoring as many marks as possible. These trainees follow typical teaching methods when they step into the practical world. Most need to implement what they are equipped with. The researcher wished to highlight the obstacles these builders face that hinder this.

This study tried to develop a better teacher education program and revise the study scheme to make the teaching-learning process more effective and impressive. It is a fact that learning increases if teaching is effective. Teaching is an interaction between two personalities, teachers and learners. The teacher is the nicest and the most pleasant class of mentor. The teacher education program focuses on developing teachers' knowledge and enhancing their capabilities. When the teachers get into practical life, they cannot implement whatever they have learned in theory. This is the significance of the study. The researcher wanted to explore where the loophole is and how the training can be beneficial.

Study Objectives

1. To evaluate the existing theory and practice in teacher education.
2. To identify the gaps between theory and practice in teacher education
3. To examine the causes of the gap between theory and practice in teacher education.
4. To propose a strategy for minimizing the gaps between theory and practice in teacher education.

Literature Review

Giving lessons to pupils in a proper classroom is more complex than many think. It is a knack that requires a precise mindset and training to make learning hyper-efficient and adequate. Effective teaching can increase the possibility for improvement in achievements. Professional education is a significant component of higher education. Teacher education has gained attention since Pakistan came into existence. Many institutions have been developed to meet the present need of this development program. The literature is viewed to create a strategy to flourish and foster the correlation between the two and to put the program in line with the student teachers' learning needs. Dooly and Sadler (2013) modify teacher education into three components:

1. It is a process for understanding the child's development and learning.
2. In this process, the instructional methodologies are enhanced.
3. It modifies the teachers' attitudes and behavior regarding the sensitivity of professional and educational issues and inculcates a cheerful temperament inclined to moral values.

Rao and Rao (2005) have used theory words in a particular manner. It is a scheme through which the teachers learn the fundamental doctrine of how to teach students effectively, which has come to light due to research. It is designed to equip teachers with the required knowledge and skills to perform their tasks effectively in the classroom, school, and broader community.

Mayer et al. (2017) highlighted that the content of teacher education is gleaned from the disciplines of Philosophy, Sociology, and Psychology. Morrison (2016) conducted a study on the importance and objectives of practice. Participants of this study gave eleven declarations. Practice helps the trainees to use theory in practice. It assists the trainees in developing their teaching skills and methodology. It guides the trainees in learning about the complicated position of the teacher. It gives the trainees a place in the educators' groups. It provides an opportunity for the trainees to

determine whether they have selected the right profession for themselves or not. It motivates the trainees to practice contemplative activities. It enhances their strong feelings as a teacher; it gives them the status of a teacher. It allows the trainees to work in an actual situation with real students. The trainees have a good time mingling with the real-life conditions of teachers as they meet them in schools and learn about their lives. The practice assists the trainees in creating their own ideology and views about teaching. It is a platform where the trainees can foster their capabilities and proficiency.

Cohen et al. (2013) suggest four goals of practice, each with attainable objectives and motives. It builds up and strengthens the professional competence of trainee teachers. It must understand and familiarize with the school climate and situation. It must foster the teachers' personal and professional blooming and maturation. It needs to influence the school environment by improving the students' learning and attainment and serving the community in the best possible way.

Selke (2001) stated that action research plays an esoteric role in building and patterning teaching skills. It is beneficial for teachers to preoccupy and construct knowledge more productively and coherently according to the needs of students.

An article by Koshic and Beck (2000) outlined the view of action research as a strategy in teacher education. They discussed the significance of action research, its impact on students, the acquisition of skills by the teachers, and why action research should be included in teacher training. Classroom research can be described as action research. They further stated that action research helps to foster professional development. The teachers are involved for a year or more in classroom-based research projects. It enhances the teachers' knowledge, and they are actively engaged in research on teaching and learning. It is a gateway through which teachers can implement theories about how students can learn better and improve their achievements.

According to Beck and Kosnik (2000), action research has the following elements: It is a pathway that involves the teachers in critical thinking and objective analysis of the educational program and methodology. Teachers can get to know their students; interaction, observation, and data gathering are possible. They study the available literature related to their entitled research. They share and demonstrate their project with the community.

In their article, Ulvik et al. (2018) explored that student teachers apply theory and research in several ways, and they serve as "consumers and producers" of research. They find outlets on how to interact in actual situations. In this research, they are able "to reflect on their own practice."

Ulvik (2014) stated that "Independent judgment and development" is the need of teaching nowadays. Action research is one of the techniques through which professional advancement is highlighted and increased. His study further disclosed that action research could bring about capacity for proficient maturity for student teachers. It helps in understanding the connection between theory and practice.

Freeman et al. (2014) viewed classroom management skills as needing development during teacher education. Korthagen (2010) has given her point of view that the disparity between theory and practice is a never-ending argument. It is a chronic case. Teacher education is crucial in the future actual application of student teachers. The subject matter taught in teacher education is usually not passed on to the implemented training, which is the basic need for this education.

Cheng et al. (2010) divulged that teacher education programs could be surpassed only if the gaps between theory and practice were pinpointed and then filled up those breakages and formulated connections between the two with the combined efforts of educationists and learners.

Ali (2011) has stated that most teacher education programs must be more robust, shabby, and stiff. It is a textbook and examination-based program. The main features of this program are chalk-and-

talk, learning by heart, and giving lectures. It does not focus on developing teachers' personal and professional capabilities and abilities. There is a significant disparity between teacher education and the school education system. The training programs are controlled by theories and suppositions, which, in return, support the technical prototype, and this is condemned internationally. He added that the teachers' artistry could be weighed and committed by the quality and standard of the teacher education programs they went through.

Khan (2011), in his study, has stated the grounds for poorly developed and disorganized teacher education programs. He expressed his views that the curriculum taught is only based on knowledge and is not applicable in classes.

Jujjar and Dogar (2006) conducted a comparative study on the teacher education program at Plymouth State University, USA, and Federal College of Education, Pakistan. They found that in Pakistan, traditional teaching methods are used, while in the USA, a large variety of methodologies are used in class. The Faculty members of Plymouth State University keep themselves updated with knowledge of the analectic program, and here it is, and vice versa.

Dhari (2006) states that several teachers are a compilation of segregated courses in which theory does not connect much with practical scenarios. Research conducted by Ghori (2009) endorses that Science and Humanities faculty ought to be directed solely. There is no doubt that well-skilled trainers are a prime source of remarkable tutoring.

In her research, Korthagen (2010) noted that prospective teachers join this program with their own reasons, thoughts, and considerations. It varies from person to person, so giving exceptional and solitary guidance and steering to them is necessary if a strong liaison between theory and practice is desired.

Gopang (2016) studied the "Teacher Education and Professional Development Program in Pakistan." He called teacher education primarily teacher development. It is a continuous exercise of gaining knowledge on practicum and then putting a thinking cap on it. He came up with the result from his study that teachers have a strong demeanor and inclination towards learning and training, as they call it a tool for increasing their competency level.

Research Methodology

The study followed a research framework based on the concept of phenomenological approach. Such an approach is best suited to this research because it aims to reveal what teachers experienced and how they perceived their learning (Colbert et al., 2008).

Study Population

According to the Annual Statistical Report of Govt. schools (2017-18) Govt of KPK Elementary and Secondary Education Department Peshawar, there were 220 Govt. girls' high schools in Charsada, Mardan, Nowshera, and Peshawar districts. The total number of female senior subject teachers was 1178, and principals were 220. The study also included all the teaching faculty members of IER, the University of Peshawar, and Qurtaba University. 9 faculty members of IER and seven faculty members of Qurtaba University comprised the study population. All these constituted the population of the study.

Table 1: Population of study

Districts	Total no. of Govt. Girls High Schools	Total no. of Principals	Total no. of SST
Charsada	41	41	214
Mardan	80	80	460
Nowshera	35	35	201
Peshawar	64	64	303
Total	220	220	1178

Study Sample

Sample of the study was selected by convenient sampling from the population. By using Krejcie and Morgan table, 190 Govt. girls' high schools made the sample of the study from the whole population of the four districts Charsada, Mardan, Nowshera and Peshawar. 331 senior subject teachers and 190 principals were taken as the sample of the research. All the teaching faculty members of IER, University of Peshawar and Qurtaba University were also be included in the study. 9 faculty members of IER and 7 faculty members of Qurtaba University were the sample of the study:

Table 2: Sample of the study

Districts	Total no. of Govt. Girls High Schools	Total no. of Principals	Total no. of SST
Charsada	37	37	54
Mardan	66	66	113
Nowshera	32	32	65
Peshawar	55	55	99
Total	190	190	331

Tools of the Study

The study used a standardized opinion questionnaire for principals, senior subject teachers, and faculty members of educational institutions. The opinionnaire immensely helped the researcher to inspect the image of the principals and teachers in the teacher education programs. An opinion questionnaire was personally administered to the sample. The opinionnaire was divided into three categories.

1. Aspects of learning comprised eleven statements using the Likert's Scale.
2. Features present in the program had ten statements using binary data (present/absent).
3. Perceived skills consisted of thirteen statements using binary data (yes/no).

Data Collection and Analysis

Opinionnaire were personally administered to the said sample. The total number of respondents was summed, and the percentage was calculated. The Likert scale responses were converted into quantitative forms and frequency and percentage were calculated. The other responses were collected as binary data (present/absent and yes/no), and frequency and percentage were calculated. Inferential Statistics was also applied, and standard deviation was calculated. The potency of the outcome and opinionnaire were secured by following an impartial and equitable access. The data was further illustrated with the help of Bar graphs. The three formulated hypotheses were tested using inferential statistics, and the result is shown below.

Ho1: There is no significant relationship between the existing theory and practice in teacher education.

The given correlation study investigates the connection between established theory and practice in teacher education. The null hypothesis posits no statistically significant correlation between theory and practice in teacher education. The Pearson correlation coefficient (r) is employed to measure the magnitude and orientation of the association. The correlation coefficient between theory and practices is determined to be .633, with a p -value of .000. The correlation coefficient of .633 suggests a substantial positive association between theory and practices in teacher education. Moreover, the p -value of .000 is below the standard significance threshold of 0.05, indicating that this link is statistically significant. Consequently, the data obtained from the analysis supports dismissing the null hypothesis. Practically speaking, this means an essential and positive correlation exists between theory and practice in teacher education.

Ho2: There are no significant gaps between theory and practice in teacher education.

The study focuses on hypothesis *Ho2*, which posits no substantial disparity between theory and practice in teacher education. The data comprises the mean, standard deviation, mean rank, chi-square statistics, degrees of freedom (Df), and the corresponding p -value for both practices and theory.

The average value for practices is 3.5479, measuring how much the values vary from the average of 0.13508 and an average ranking of 1.01. Conversely, the average value for theory is 3.8396, with a standard deviation of 0.21290 and an average rank of 1.99. the chi-square is 155.025, and the p -value is 0.000.

This p -value of 0.000 is below the standard significance level of 0.05, showing statistical significance. Therefore, we refute the null hypothesis and infer a substantial disparity between theory and practice exists. The chi-square value of 155.025 provides additional evidence in favor of this view. This means there is a noticeable and meaningful difference between the average scores in theoretical and practical aspects.

Ho3: No significant causes bring about the gap between theory and practice in teacher education.

The analysis is centered on hypothesis *Ho3*, which asserts that no critical factors contribute to the disparity between theory and practice in teacher education. The data comprises the average, standard deviation, average rank, chi-square statistic, degree of freedom (Df), and the corresponding p -value for the concept “causes between theory and practice.”

The average value for “causes between theory and practice” is 3.7092, measuring how far the values vary from the average of 0.14122 and a ranking of 2 in terms of average value. The average value for the combined construct of theory and practice is 3.5479, measuring how much the value varies from the average being 0.13508 and a ranking indicating it is the highest among all other constructs.

The chi-square is 159, and the p-value is 0.000, below the standard significance level of 0.05. Therefore, we refute the null hypothesis and infer that substantial factors contribute to the disparity between theory and practice in teacher education.

Findings

The graduate program was constructive, but some aspects still need to be focused on so that the teacher education program becomes more effective.

The results from the opinionnaire revealed that classroom management skills need to be developed during teacher education. The disparity is found between teacher education and the school education system. Theories and suppositions control it. The curriculum taught is based on knowledge and is not applicable in class. Perspective teachers should have been taught how to work with diverse students. Planning lessons for diversified students should have been included. An intense need was felt to learn how to deal with them and carry on with the other students simultaneously in the class. It was found that the supervisors wanted the future teachers to consider what they had taught them, and they were not allowed to make assumptions.

It was found that future teachers found it hard to mingle theory and practice with each other. Both the features were not in compliance with each other in real life. Practical exposure, use of electronic media, making alterations, and modifying teaching methodology according to learner's requirement were also missed features.

Discussions

The graduate program includes theory and practice as an integral component of its scheme of studies. It was studied in detail, and with the help of a literature review, the analysis of data, and clarification of the responses to the opinionnaire, it was found to be productive. Still, it needed to be more focused and cover its weaknesses in some aspects.

Results from the study revealed that the respondents' verdict towards the graduate program was positive and constructive. The graduate program lacked the feature of inculcating motivation in the teachers. It did not encourage them to do something on their own. They had to follow what they were taught. They could not build up their assumptions or points of view regarding teaching in class. Juggar and Dogar (2006) also believed that traditional teaching methods are used in Pakistan. It was taught and focused in the program that the teacher is not only the teacher; they have to play the role of facilitator and concern their students as co-learners.

The respondents gained confidence through this program, which helped them change their teaching styles. They brought about innovation in the teaching-learning process and flourished their teaching. The study showed that a contrast was found in theory and practice. The teachers believed that teaching in existent circumstances varied from what was taught and learned in the program. Ali (2011), in his research, also pointed out that the said program is chalk and talk, learning by heart and giving lectures. School is a part of the community, and teachers need to be conscious of it. However, the program needs these characteristics. Cohen et al. (2013) have remarked that serving the community best is the goal of teaching practices.

The future teachers need to be more profound in using modern educational means of communication and technology, which is the day's demand. Desimone (2009) has observed that teachers need to keep themselves updated and growing continuously.

Conclusion

After the findings and the discussion, the following conclusions are drawn. Teacher education is a platform where prospective teachers are trained to create a better place and attitude for learning. Teaching is the procreator of all métiers. Several objectives underline this program. The top aim is to develop a mindset of teachers for this profession. It needs total commitment to generate elementary skills in teachers and to bring about teachers' systematic research-based, logical, and clear-sighted outlooks. It also needs to renovate a comprehensive, balanced, and mature persona of teachers.

Despite these comprehensive objectives, a gap exists between theory and practice. From the opinionnaire and literature review, it is evident that this graduate program is very effective, rich, and fertile, but there is always room for refinement. The foremost point that was found and needed to be filled was that perspective teachers were required to be taught how to work with diverse students in the classroom. Planning lessons for diversified students should have been included. It was found that the supervisors wanted the future teachers to consider what they had taught them, and they were not allowed to make assumptions.

It was found that future teachers found it hard to mingle theory and practice with each other. Both the features were not in compliance with each other in real life. It was also figured out that future teachers could not equip themselves with some particular finesse. It included using modern technology, searing lines of thoughts, accelerating group learning exercises, and solving hornets' nests in their classroom.

Recommendations

In the light of the literature review, findings, discussion, and conclusions, the researcher has tried to formulate a strategy for linking theory and practice in teacher education.

Introducing the homogenous graduate program: One comprehensive graduate program should be constructed with the help and guidance of the faculty members of all educational institutions (Teaching institutes and schools). This course of the line should be followed in all the institutes conducting teaching graduate programs. Uniformity is a must; only then will productive teachers be produced. One well-set syllabus, fixed practicum period, and specified evaluation system are needed.

A systemize admission process: An aptitude test should be taken to check the readiness and mindset of the candidates who opt for this profession. Standardized tests and interviews should be given weightage.

Proposed period: The suggested time frame for the graduate program is 2.5 years.

Teaching practice is mandatory: Teaching practice is a must, and it should be an integral part of the curriculum. It should be mandatory. The suggested time for practicum is at least one year.

Insertion of action research: Action research blooms professional development. In the researcher's opinion, action research can be a convenient and applicable source for executing different theories. Theory and practice can be firmly bonded through action research.

Role of schools: A strong bond is required among the institutes of education, the schools, and trainees. The school management should assign a timetable to the trainees according to the demands of their subjects and classes. The communication gap needs to be removed. The veteran teachers' valuable assistance, cooperation, encouragement, and guidelines will boost their morale, and learning will automatically be stimulated.

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