An Analysis of Effectiveness of Initial Professional Development Program In Enhancing Pedagogical Skills of Newly Recruited Junior Elementary School Teachers of Sindh: A Qualitative Investigation

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Initial Professional Development (IPD) programs is a fundamental strategy to enhance the effectiveness on the pedagogical skills of teachers to foster the quality education among newly recruited Junior elementary school teachers (JESTs) in Sindh. After its implementation, there is very little information about the program's effectiveness in addressing the field specific challenges and improving pedagogical skills. The study aims to investigate the challenges faced by newly recruited Junior Elementary School teachers. The research design is qualitative phenomenological approach. the research has collected the data through semi-structured interviews. Consist of open-ended questions is used in interview. The sample size is 10 Teachers from all over Sindh. The findings are that the initial professional development program has visible impact on their professional knowledge and pedagogical skills and support the teachers to face the challenges and create opportunities in theirs schools. The results of this research indicates that the IPD program is effective for the development of pedagogical skills. Furthermore, the results indicated the challenges of resource constraints, time constraints, infrastructural and overcrowded classrooms faced by the newly recruited JESTs to effective implementation of pedagogical strategies. The research study addresses the gap in the literature to improve the alignment between teacher's professional development of effective teaching-learning practices and fostering skills of teachers for Sindh's Education system of Elementary School. The research recommends that proper follow-up after the IPD program should be taken. Furthermore, the policy makers and department should allocate the resources and support the teachers at their school-setting ensuring the implementation of pedagogical strategies of IPD program in Sindh.

1. Introduction

Researchers' and policy makers focus led by the recent efforts in education made them to understand the possible effectiveness of teachers' professional development programs, enhancing educator's quality of students learnings, on improving the quality education in schools (Opfer et al. (2011); Herbertet al. (2022).Professional Development program is an important pillar which ensure the effective teaching and learning practices for the enhancement of students' engagement, learning outcomes, and students' performance. New teachers' initial professional development programs serve as the bridge between long career of pre-service and professional development programs (Hessinger, 1998; Ellison, 2022). Newly recruited Junior Elementary School Teacher of Sindh Government is the milestone towards the quality education. But they often feeling challenges in adapting the classroom settings, managing assessment techniques and application of the appropriate strategies of teaching learning process. In low- and middle-income countries, many teachers lack in pedagogical skills, and professional development programs are the key tool that government use to enhance their skills (Popova et al, 2022). To address these challenges and to improve the quality of education Government of Sindh has initiated the initial professional development program for the newly recruited Junior Elementary School teachers who have content knowledge but lacks in the pedagogical skills. The structured initial professional development programs enhance pre-service teachers' ability to improve teachers' classroom management skills and pedagogical methodology (Fayyaz et al., 2024; Tufail et al., 2023). Similarly, according to Ali et al. (2024) extensive training differentially effect the quality of teaching and learning outcomes. Teacher education is intended to over-come the specific challenges of filed, prepares Teacher educators and emphasize on the alignment of quality of learning and instructional approaches (Ahmed et al.,2020). Furthermore, it is also defined by Kilpatric that education is distinctive and irreplaceable to humans and cannot be transferred to the animals (Sohail & Barkat, 2018). Initial professional development programs help the teacher educators to integrate their skills into school culture, create professional expertise and face challenges which came over during the initial years (Zeinchner & Gore, 1990; Donkor & Domfeh, 2024). In spite of pre-service education, the induction training remains equally important for the professional development (Abbas et al, 2019).

Initial professional development program of newly recruited teachers in Sindh has been initiated since 2022 but to find out that how it is effective to cope up with the challenges in the field, and how it improves the students' engagement and assessment techniques. It is also important for future studies to examine short and long-term impact of induction training on teacher performance and learners' achievement (Naila et al, 2024). To get in-depth knowledge on the effectiveness of the initial professional development program on pedagogical skills of newly recruited junior elementary school teachers of government of Sindh is required to be done.

1.1 Research Objectives

➢ To explore the effectiveness of initial professional development program among newly recruited Junior Elementary School teachers.

➢ To identify the challenges faced by newly recruited junior elementary school teachers in implementing strategies learned during initial professional development programs.

1.2 Research Questions

➢ How the initial professional development program is effective for newly recruited junior elementary school teachers in Sindh.
➢ What are the challenges faced by newly recruited junior elementary school teachers in implementing strategies learned during initial professional development programs?

The purpose of this research is to explore the effectiveness of initial professional development program on pedagogical skills of newly recruited Junior Elementary School Teachers of Sindh. At this stage in the research, effectiveness of initial professional development program was be generally defined as the extent to which initial professional development Programs improve teachers' pedagogical skills (Assessment techniques) and leave the positive impact on the student learning outcomes in the context of newly recruited Junior Elementary School Teachers of Sindh.

2. Literature Review

It is commonly believed that learning theories provide a basic theoretical framework for training activities (Ali & Halim, 1997; Higgins & Elliott, 2011; Lawless & McQue, 2008). This research is based on This research is firmly based on four key theories: "Piaget's Constructivist Theory (1964), Vygotsky's Sociocultural theory (1997), Scion's Reflective Practice Theory (1983) and Andragogy Theory (Knowles,1980)". The Andragogy Theory (Knowles,1980) which focuses on adult learning principles emphasizes on the need for self-directed learning and practical application, instead of pedagogy, a theory of child learning, is usually considered. The study finds that initial professional development influences on Pedagogical skills and performance of the participant teachers.

Vygotsky in its sociocultural theory defined that learning is a constructive process where an individual develops its knowledge and skills through collaborative interaction, practical approach and experiences. In the light of initial professional development, the theory describes the importance and need of collaborative learning approach by emphasizing on the need of the collaborative environment and practical hands-on activities that encourage teachers to engage deeply with current pedagogical concepts and teaching-learning practices. Furthermore, Vygotsky's Zone of Proximal development argues that learners achieve their full capacity and potential through scaffolding and guided support. In the context of initial professional development program, mentoring and proper teaching guidance are crucial for supporting the newly inducted teachers to transform the knowledge into practice.

According to another theoretical approach of the Fixen et al. (2005), to understand the barriers for implementing new strategies, the implementation Science Framework provides a systematic process. This framework identifies the factors for example resource availability, organizational support and alignment of training programs with job expectation and needs, which can positively impact the implementation of the pedagogical knowledge and teaching learning practices.

2.1 Concept of Professional Development

Initial teacher training program is the key to teachers' performance and quality (UNESCO,2019). Teacher initial professional development is learning that it can be for individual as well as for group, but according to the teachers' workplace context (school) and it involves the development of skills through various formal and informal experiences (Marcelo, 2009). Professional development is referred as the institutional policies, programs that supports and facilitate the teachers so that they may fully serve their institutional needs (Nguyen. H.C.,2018; Webb.,1996). It is the process where an individual gets and improves the pedagogical knowledge, skills and attitude for enhanced processes and practices (Mitchell.,2013, page:390). According to the Young and Castetter, (2004) provides a broader view of professional development, in term of all the activities that are designed to improve the teacher's ability to work in expected role.

Thus, it is the first stage of career to initiate learning and teaching process for teaching career to develop the skills and to implement quality educational process and activities (Weins et a., 2021). The teachers' induction programs mostly lack in the research perspective and it is indicating that initial professional development programs might not enhance teachers' teaching learning and research capabilities effectively (Iqbal et al, 2021). Overall the professional development refers to the development and improvement of skills, knowledge, change in attitude towards the profession and action of certain individuals.

2.2 Initial Professional Development Program for Teachers

The Training program standards are often insufficient that may impact the learning of the induction programs (Aslam,2013). teacher professional development is widely viewed as the most promising intervention for improving existing teacher quality (Goldschmidt & Phelps, 2010). The study evidenced that pre-service and in-service training provide support to the teachers for promoting the student's engagement through designed learning environment (Kristin et al, 2015). The research studies of Fayyaz et al. (2023), Tufail et al. (2023) proved that structured ITPs enhance a pre-service teacher's skill set needed to manage a classroom and implement instructional methods competently. The induction training aims to support the professional growth and increase teacher's knowledge (Fernandez et al., 2019).

Underscore the importance of the initial professional development program in supporting the teachers' skill development and improvement of pedagogical knowledge and strategies to cope up with the challenges in the field. Newly inducted teachers tend to face problems and difficulties in creating and managing classroom learning environment, producing supportive teaching-learning climate, activating students learning activities, meeting the student's need and requirements, displaying the clear instruction and teaching effectively to the students (Maulana et al., 2012; Maulana et al., 2015). According to the USAID EQUIPI. (2021, pg-10) on the design of pre-service teachers' education programs that an effective professional development of teachers leads to enhanced program implementation and development.

2.3 Challenges faced by the newly inducted teachers

Newly appointed teacher educator are often left on their own to work through the challenges in their classroom settings. The newly inducted teachers face playing various roles and performing multiple duties while learning the same duties at the same time (Martínez-Domíngueza & Rebaciuca, 2021). The newly appointed lecturer faces performing several duties while at the same time trying to learn those duties. (Mubaso, 2012). The IPD program should ensure the required practical knowledge they convey to their institutions by effective implementation of the programs learnings (Mubaso, 2012). According to the research study of Martínez-Domínguez and Rebaciuca (2021). The education system in Sindh, Pakistan, having challenges like shortage of qualified teachers, inadequacy in infrastructural facilitates, and shortage of resources (Farooq & Haq, 2018). The literature indicates that in the ground level the shortages of resources, untrained teachers creates hindrances in the proper implementation of the teaching-learning practices.

3. Methodology

Present study adopted a qualitative phenomenological research design to explore the challenges faced by newly recruited junior elementary school teachers in implementing strategies acquired during initial professional development (IPD) programs. This approach was chosen to gain an in-depth understanding of participants' lived experiences and to capture their perspectives on the effectiveness and application of IPD strategies in real classroom settings (Mey, 2022). The study focused on teachers from Sindh who had attended IPD programs. Participants were selected through purposive sampling to ensure relevance and diversity Creswell, 2014). Data collection methods included semi-structured interviews, classroom observations, and document analysis. Ten in-depth interviews were conducted with teachers to explore their perceptions, challenges, and the impact of IPD on their pedagogical practices. The flexibility of semi-structured interviews allowed participants to express their views freely, while classroom observations and document analysis provided additional context. Data from interviews were audio-recorded, transcribed using Turbo Transcriber, and analyzed using a combination of thematic and narrative analysis. This approach uncovered patterns, themes, and insights related to the effectiveness of IPD programs and the challenges teachers encountered in implementing the strategies they learned.

4. Results of the Study

The research involves the active participation of 10 newly recruited junior elementary school teachers from overall Sindh. this comprehensive study followed a semi-structured interview methodology to get firsthand in-depth information directly from the participating teachers about the effectiveness of the program and the challenges faced by the teachers to implement the pedagogical strategies of IPD. Results of the research are exactly presented and deliberated upon in the context of the following thematic categories:

The Effectiveness of an initial professional development program
  ➢ **Positive Transformation through IPD training**
  ➢ **Collaborative learning environment & peer learning**

Challenges in implementation of the pedagogical strategies

> **Practical application of pedagogical strategies**
> **Resource constraints**
> **Overcrowded classrooms and Time constraints**
> **Student's foundational learning gaps**

The research aims to contribute valuable insight for the implications of practice and policy by exploring and discussing the above identified themes into the current scenario of the effectiveness of IPD program on pedagogical skills in terms of application and challenges faced by the teachers to implement these strategies in their classroom settings and their specific context. The research offers the holistic understanding of the challenges and potential improvement in the pedagogical skills through receiving the initial professional development training.

Objective one: To explore the effectiveness of pedagogical skills of initial professional development program among newly recruited Junior Elementary School teachers.

4.1 Positive Transformation through IPD Training

To start with the conversation, the research asked the participants to explain the experience of their IPD training. Teachers overwhelming responded that the IPD training program served them as a transformative experience, positively improving their pedagogical skills, knowledge and enhancing the confidence to implement the strategies. One of the respondent said "*I learned innovative methods, reflective practices and how to engage students creatively. The methods are now central to my classroom strategies*". They also highlighted the various new concepts they had not aware of it initially like bloom's taxonomy, four C's of learning as mentioned by another respondent "*I learned about bloom's Taxonomy and multiple intelligence I had heard before but never fully understood until this training*". Similarly, participant pointed towards their personal growth transformation after training program that "*and for me, it was such a big change*". The teachers expressed that initially they have doubts about the relevance and effectiveness of the program. However, there perception transformed positively as they were completely engaged. As one of the respondent expressed "*I didn't expect much from the training, but it turned out to be a highly enriching experience*". The IPD program had played in their professional growth. As it is responded by the participants that *"I think it was enhance my professional growth and teaching as well.* Teachers found this as a positive experience, as it provided them the opportunity to reflect upon their practices and narrowing down the gap between the theories and practices for novice teachers (Allen Butler-Mader, & Smith,.2010). The program serves as the effective tool to bridge gap between the theoretical knowledge and practical application to adapt diverse strategies according to the classroom needs and students' engagement.

4.2 Collaborative Learning Environment & Peer Learning

Teacher has viewed the IPD program efficient and provided opportunities to learn collaboratively as team. The respondent teachers expressed that the group work pedagogical strategy during the session allow them to form team and share their ideas and information within

the team. It allowed them to reach more and more participants and enhance the chances of peer-learning. One of the respondent stated that "*learn many things about yourself, because you have to collaborate every time when your group is changed*". They further described that the approach helped them to apply the same strategy in overcrowded and multi-grade classroom. As one of the respondent expressed that "*how to engage pupil in boring subject with new method and it was very effective for me now applying in the classroom*". Teachers started working efficiently and the program helped them to develop essential skills in teamwork, adaptability and flexibility, and problem-solving skills which are exchangeable to classroom as well as institutional setting. According to Garet et al, (2001) professional development practices has three main core feature which have positive and significant impact on teachers' self-reported skills, knowledge and changes in the teaching and learning practices in classroom settings which are focuses on content knowledge, active learning opportunities and alignment with other learning activities. On the basis of respondents' responses, it can only be achieved through collaborative learning environment.

4.3 Master Trainers Competency in IPD Program

The competency of the trainers plays a vital role in the perceived effectiveness of the training program. Teachers highlighted in their responses about the impact of inspiring and knowledgeable mentors who provided them the guidance and support during the program. One participant remarked, "*the trainers very highly qualified and guided us effectively on curriculum development*". It is evident from the response that the pedagogical knowledge and effective skill transformation comes within the trained and well prepared teacher trainers. However, challenges with novice or unexperienced mentor were also noticed during the interview. As another responded stated, "*one of the trainers continuously spoke incorrect English, which was demotivating*". Furthermore, other respondent remarked, '*they are not trainers. They are teachers who were hired to give the training*". Mentoring plays a significant part in teaching and learning practices (Shah.K, Khan. N., 2016). They are considered as facilitators of learning (Cheng, 2005; Wilson & Huynh, 2020) and role models. (Rose & Rogers, 2012) generates social and cognitive development of future teachers' professional characteristics (Solé et al., 2018; Yoon & Larkin, 2018).

Objective two: To identify the challenges faced by newly recruited junior elementary school teachers in implementing strategies learned during initial professional development programs.

4.2 Practical application of pedagogical strategies

During the conversation, the researcher enquired about the practical application of the pedagogical strategies in their classroom context and school setting. They were very confident about the pedagogical knowledge and skills they had acquired during the program and found the strategies very effective in nature. One of the respondent expressed, "*the training gave us methods that were practical and aligned with the needs of our classroom*". Another teacher viewed it as, "I change my lesson to lesson strategies and methodologies". The findings suggested that the respondent had found the strategies found effective. On the other hand, respondent teachers

expressed that, at the ground realities and in very institutional settings, all the pedagogical strategies are not applicable. As on the respondent teacher said:

> On the last day of training, we all were overconfident with our IPD pedagogical skill. So we decided that as soon as we go to school, we was do everything; we was apply everything in school. But them we have to see a little reality because ground reality is very important for you that you apply what you need there.

From the above response, it is evident that the practical application of the pedagogical strategies has constraints and they face challenges in it.

4.3 Scarcity of instructional resources for pedagogical strategies implementation

Instructional resources are the key variables that makes the teaching and learning practices to be implemented successfully. The use of these resources enables critical thinking and active participation to learners (Lupeja, T.L., & Makwinya, n.M., 2021). During the conversation with the researcher highlighted the key challenge of implementing the pedagogical strategies in their classroom setting is the resource unavailability, as the respondent stated, "*If we have the full strength of students, we don't have enough desks or chairs. This makes it difficult to implement strategies effectively.*" In this context, another respondent remarked, "*We lack basic resources like charts and storybooks, which are essential for activity-based learning.*" It makes the teachers restricted and reluctant to apply the strategies. The teachers faced the basic facilities to develop teacher and learning environment. the absence of technological tool further limited the scope and importance of strategy implementation. The teacher respondent reflected on it as," *so, the first challenge which I faced is that there is not availability of material, there is need of resources*". Most of the respondent pointed out it as the first and foremost challenges they are facing during the implementation process. On the other hand, teachers showed adaptability and flexibility of the current situation of their school setting and by understanding the condition they put every possible effort to make the pedagogical strategies implementation possible. As it can be viewed through the response of the teacher. She stated, "*yes, due to limited resources, we are still bound to perform strategies, but when we tried our own, we use our material, we use our own resources*".

4.4 Overcrowded Classrooms and Time Constraints

Junior elementary school teachers had shown their concern and considered overcrowded classroom as a challenge to the implementation of instructional approaches in their institutional settings. Due to unavailability of infrastructure facilities, and limited number of classes a large number of students sits under one roof. It also creates time constraint that they cannot provide proper time to the class. One of the respondent stated, *"The enrollment in my class is too high, making it hard to focus on each student individually."* Similarly, the other respondent responded as "*"With over 40 students in my class, it's difficult to manage time and ensure every student is engaged."* Another respondent said, "*the classroom is already crowded because I had 48 students.*"

Along with the overcrowded classrooms time constraint is the key challenges to the respondent teacher. When the researcher inquired about the challenge, the respondent responded that the extra administrative responsibilities, and shortage of allocated time for the period hinder effective implementation of the strategies. As quoted in the interview response, "It is difficult to show videos in 30-40 minutes." Another teacher responded remarked, "*Time duration makes it hard to apply strategies.*" The practical application of the pedagogical strategies in limited time allocation. The one respondent shared, "we can manage in these activities at least two or three days because we have very short time in classroom, only 30 minutes."

4.5 Weak Academic Foundation of Students

During the interview, many respondents emphasized the challenge to implement the strategies is the student preparedness. As the students with inadequate basic knowledge of the subject and over-reliance on rote learning hinders the designed strategies on the basis of the syllabus. As the respondent stated, "*students have a weak academic background, which makes teaching harder.*"

4.6 Administrative Support in Implementing Strategies

The responses in the context of administrative support and challenges. The respondent found positive institutional support to implement new instructional practices to improve the quality education. One of the respondent showed satisfaction and stated "*they always encouraged me for classroom management. They are very supportive*". On the contrary side, one of the respondent showed dissatisfaction and said, "*Students focus on ratification, not conceptual understanding. The school expects fair books to be completed.*" The teacher remarked, "*One policy is this, you have to complete your coursework in a given time That's why we can't apply strategies or methodologies to*". Teachers are emphasized to prioritize the course completion instead of innovative and creative teaching and learning practices.

4.7 Discussion

Overall, the study results indicate that the initial professional development program is more effective to enhance the pedagogical skills of newly recruited teachers. It showed that respondents were felt confident in applying the pedagogical strategies in their classroom settings. Similarly, the IPD provided them the collaborative environment of learning and opportunity to interacts with their peers. According to Vescio et al. (2008) professional learning communities (PLCs) encourage the collaborative learning environments where educators share their best practices and learn from their peers, leading to enhanced pedagogical strategies, student learning outcomes and teaching learning practices. In the context of IPD, master trainers' competencies add the value in the designed IPD program for novice teachers. the above results with reference to the perception of teachers provided them motivation to keep working in the school setting and enhanced their professional growth.

5. Conclusion

In conclusion, the study has explored the effectiveness of the initial professional development IPD on enhancing the pedagogical skills of newly inducted Junior Elementary School Teachers (JESTs) of Sindh and the challenges faced by them to implement the pedagogical strategies at their classroom and institutional settings. The general purpose of this program focused on making improvements in the contents and the modalities of practice among educators which can increase the authentic participation of the teachers, to orient them with required pedagogical skill to face the challenges in the classroom and equipped them with skills to improve the quality education. However, its effectiveness as a program at Sindh has not been fully investigated, particularly on meeting the practical needs of teachers in actual world classrooms.

5.1 Implications of the Research

The results benefit the policy makers, strategic planners, the allied teacher education departments, provincial institute of teacher education, implementers, teaching training institutes and education institutes of Sindh, Pakistan, that provides and design teacher education programs. The study results demonstrated that the IPD program is effective and unique in its nature and demonstrated that the teacher induction training program enhances the pedagogical skills and equip them with enough practical knowledge and adds in the professional growth before entering in the real-classroom settings. Therefore, policymakers should design such programs not only for the PSTs and JESTs but other teaching cadres to impart the quality education and professional growth of the teachers. secondly, the results indicate the challenges that are faced by the newly inducted teacher are time constraints, resource shortages, infrastructural challenges, curriculum completion and administrative challenges. These challenges derive the attention towards the lack of practical approach of proper lesson planning from the teachers' perspective and shortage in resource allocation. The policy makers and the educational management should allocate adequate resources like teaching aids, technology and material tailored to the classroom needs. The teachers' education department should design continuous professional development programs on the basis of the findings of research. It was help them to identify the areas where the teachers lack in instructional practices and knowledge. Thirdly, the follow-up strategies and monitoring should be designed by the policy makers to ensure the implementation of the pedagogical strategies learned during the program. Finally, the policy makers can provide the professional development session to the school leaders as they can foster the supportive environment to the newly inducted teachers.

5.2 Future Research Areas

As this research is based on the sample size of only ten teachers from overall Sindh who received the IPD training session, which made up a very little sample size based on both urban and rural setting for this qualitative research. It may be done more thoroughly on a varied and larger population. It may be further explored from the multi-grade setting as well as hard area where they work in very vulnerable situation and environmental settings. Research on the viewpoints of the JESTs teachers regarding their challenges. Moreover, the same qualitative study may be done to explore the effectiveness of IPD program among newly recruited Primary School Teachers (PSTs)

in Sindh to get the insightful depth knowledge of the phenomenon. Furthermore, the comparative analysis research studies may also be conducted to find out the comparison among the effectiveness of both IPD programs. It was also help to get the knowledge that which program has greater impacts. Another research studies may also be conducted on the success and failure of the IPD programs of JESTs and PSTs teacher and role of teachers' education department in this context. Another research area related to the improvement in student performance, student achievement, growth in school performance after the induction of new teachers in Sindh schools may be explored.

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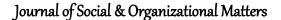
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