

"IMPACT OF TEMPORARY TEACHING APPOINTMENTS (STIS) ON STUDENTS' ACADEMIC ACHIEVEMENT IN PUNJAB PUBLIC SCHOOLS."

Dr. Kamran Masood

PhD Education, International Islamic University, Islamabad

Email: kamranmasood1973@gmail.com

Dr. Muhammad Umar Mehmood

PhD Education, Punjab School Education Department

Email: Pashagee143@gmail.com

Dr. Bakht Jamal

Punjab School Education Department

Email: bakht.phdedu155@iiu.edu.pk

Atta Ur Rehman Bhatti

PhD Education, Islamia University of Bahawalpur, Bahawalpur

Abstract

Pakistan, particularly in Punjab, has been faced with teacher shortage consistently within the public sub sector to necessary extent to promote quality education to students. In response, an initiative by the name of School Teaching Interns (STIs) policy was included, which provided short-term, temporary and contract-based teaching posts. In this study, the researcher would examine how such temporary appointments would influence academic performance among students in public schools in the province of Punjab. This is to determine whether students taught by STI teachers execute differently with those taught by permanent teaching staff. Data were retrieved in the form of primary data in the quantitative and correlational-comparative research design by visiting public schools with both STI teachers and permanent teachers. Standardized test scores were used to determine academic performance in students. T-tests and correlation coefficients were done statistically to analyze the difference in results. Other visual tools like bar graphs, comparative charts also were used to provide findings in an efficient manner. Findings showed that although STI clinics were useful in short-term filling instructional gaps short, these days, it has been realized that students under permanent teachers performed better compared to those under STI personnel. Teacher training, job security and experience were identified as some of the factors that contribute to such differences. STI teachers were usually motivated and enthusiastic but not committed in the long-term perspective and were deprived of the access to the professional development opportunities, which influenced their efficiency in classroom. The results indicate that the STI policy is able to solve short-term staffing requirements but not long-term in ensuring that the student achievement level is improved. Consequently, it is recommended that the policymakers reconsider the STI framework, including professional training, setting performance-based assessment, and providing a chance to get a permanent job. Research in future should be done on the long-term outcomes of the STI placement on institutional quality as well as research technique and pattern of school-based teachers.

Key words:

School Teaching Interns (STIs), Temporary Teaching Appointments, Student Academic Achievement, Public Schools in Punjab, Teacher Quality, Educational Policy in Pakistan.

Chapter 1: Introduction

1.1 Background of the Study.

Overall, the educational sector in Pakistan has been facing the issue of the lack of qualified teaching staff in state schools and in the rural regions especially (UNESCO, 2022). This deficiency has impacted negatively on quality of education, learning outcome, and retention

of school going children. The Government of Punjab has offered a temporary solution in this regard with the School Teaching Interns (STIs), formulated in 2020 to help fill in the gaps by hiring young graduates, on a short temporal contract (Punjab School Education Department, 2020). It was established as a stop gap measure to keep the teaching going in classrooms with no permanent teachers and hence to guarantee the continuity of the provision of the education services particularly in the underserved areas.

Although the STI policy demonstrated creativity in filling in short-term needs of staffing, the policy also brought up serious objections on the future effect of the policy on student learning. Considering that STIs are hired without special pedagogical preparation and do not undergo the same candidate assessment processes as permanent educators, doubts have been cast against their readiness to deal with classroom dynamics and address curriculum effectively (Rehman, 2021). In addition, the constant contract nature of their work can contribute to a high workforce turnover and a situation when, due to the absence of consistency, the quality of academic provisions can be insufficient to be used or achieve any results with students.

Empirical studies in numerous countries around the world point to the significance of teacher constancy, expert preparation, and command of a subject as fundamental determination of student performance (OECD, 2021). Temporary teachers are able and willing to become professional but the provided by the institution support and ensured employment security are impossible to implement a long-term professional development. This causes inequity in the level of learning equality between students with permanent trained teachers and those with staffs engaged on a contractual or intern basis (Dar & Khan, 2020). At least in the Punjab case, although the STI initiative has enabled schools to maintain operations, it has vigorously remained a disputable notion to determine whether it has brought quality education.

Also, numerous STIs are implemented, not having sufficient mentoring or induction strategies, which also influences their academic performance in a classroom and restricts their access to long-term academic aspirations (Khan & Shah, 2022). In the case of temporary teaching appointments, some papers point out that they can cause lower student performance even unintentionally, particularly in classes involving core learning, including Mathematics, English, and Science, which involve advanced pedagogical skills and content knowledge (Ahmed & Rafi, 2021).

This study will attempt to investigate the real-life stance of the effects of STI appointments on student academic performance within the public schools in Punjab. It analyses whether short-term hiring of teachers can constitute a concrete alternative to permanent teaching positions or whether it undermines the educational equity and learning standards. Since the government is still implementing this policy on a larger scale as per the financial and logistical limitations, it is all the more necessary to measure the effectiveness of the policy through an empirical inquiry. Results of this research are likely to guide education policymakers and stakeholders regarding the advantages, shortcomings, and viability of the contract-based teaching models used in the public-sector schools in the long-term.

1.2 Problem Statement

Even though temporary teacher shortages have been mitigated by the use of STIs, there is lack of empirical evidence to prove that such temporary levels of teaching arrangements has any positive contribution in academic performance of students. In many cases, the lack of training, experience, and job security may compromise the instructional quality provided by STIs. This study seeks to investigate whether students taught by STIs perform at par with or below the level of students taught by permanent, trained teachers.

1.3 Research Objectives

The study aims to:

1. Assess the academic performance of students taught by STI-appointed teachers.
2. Compare the academic outcomes of students taught by STIs with those taught by permanent teachers.
3. Examine the potential challenges and limitations associated with temporary teaching contracts in public education.

1.4 Research Questions

1. What is the academic performance of students under the instruction of STIs?
2. How does this performance compare with that of students taught by permanent teachers?
3. What institutional and pedagogical factors influence the effectiveness of STIs?

1.5 Significance of the Study.

This research holds practical significance for education policymakers, school administrators, and teacher training institutes. Understanding the effectiveness of temporary teaching appointments will help the Punjab Education Department develop strategies that prioritize quality education and long-term teacher development. It may also inform future hiring practices and the professionalization of contract-based teaching roles in the public sector.

Chapter 2: Literature Review

2.1 Introduction

The role of teaching personnel in shaping student achievement has been extensively studied across educational research. In the context of Pakistan, where the public education system struggles with chronic shortages of trained teachers, innovative policies like the School Teaching Interns (STIs) initiative have been introduced to provide immediate staffing solutions. Nevertheless, the effectiveness of these types of actions especially when it comes to teacher quality, employment security, and a connection between teacher actions and student performance are poorly studied. In this chapter, the author examines international and domestic literature related to the subject of teacher effectiveness, temporary recruitment practices, and their effect on academic performance and particularly the case of Punjab public education sector..

2.2 Teacher Quality and Student Achievement.

There is a vast amount of evidence on which the idea that the quality of teachers is among the most significant variables in determining student academic performance is supported (Chetty et al., 2019). The World Bank (2020) argues that the addition of well-trained and talented teachers has a strong impact on the cognitive and non-cognitive achievement of students. Nevertheless, in developing nations such as the case of Pakistan, shortage of the permanent teaching personnel can trigger the need to employ unskilled/contractual employees, thus compromising the quality of education provision.

According to a research conducted by Aslam and Rawal (2019), the psychometric abilities of teachers, their experience, and professional growth are vital in shaping the way students learn and perform. When teachers have secure employment and higher pay, they will be more willing to invest time and effort into students learning outcomes, than their temporary colleagues, who might not be so committed to the institution (Bashir et al., 2021).

2.3 The Rationale Behind Contractual Teaching Policies.

Contract teaching does not exist only in Pakistan. Such models experienced in countries like India, Kenya, and Ghana have tried to manage remote or underserved staff shortages (Bold et al., 2019). Such methods are generally marketed as the cost-effective and flexible solutions in relation to permanent hiring. There are however research studies that show mixed results.

Although contractual teachers can be used to fill a vacant gap in a short period, factors like the low amount of training, and job insecurity usually lead to poor student performance (Beteille & Evans, 2019).

In Punjab, STI policy was also implemented to address extreme teacher absenteeism and unoccupied vacancies primarily in rural schools (Government of Punjab, 2020). Although the policy was successful in the deployment of temporary instructors within a short time, it has elicited concerns relating to the quality of instruction and sustainability of the policy. Critiques believe that the effectiveness of teaching is decreased by short-term contracts and the absence of professional incentives (Rehman et al., 2022).

2.4 Impact of Temporary Teachers on Learning Outcomes.

The several studies propose that the availability of untrained or temporary teachers can have a harmful effect on academic development of students. As an illustration, Kingdon et al. (2018) revealed that students had higher results when taught by permanent teachers in Indian public schools, in relation to their peers taught by contract teachers, mainly because of the improved training and accountability system.

An example published by Ali et al. (2021) in the Pakistani context assessed the variations in student achievement in schools with high turnover of contractual teachers. Teaching staff inconsistency does not only interfere with classroom continuity but also interferes with student motivation and disciplines. Besides, the absence of organized professional development of STIs worsens the gap between them and their permanent analogs (Khan & Javed, 2020).

2.5 Teacher Motivation and Job Security.

Motivation and job security are some of the major issues which affect the performance of teachers. Deci and Ryan in their Self-Determination Theory (SDT) hold that intrinsic motivation is fed on conditions that make people feel competent, autonomous, and connected (Ryan & Deci, 2020). Low pay, tenure and career opportunities, as well as inaccessible tenure and pay advancement possibilities are some of the problems that contract teachers, namely STIs encounter, which restrain intrinsic inspiration and professional development (Naseem et al., 2021).

A qualitative study by Ahmed and Saeed (2020) in Punjab showed that STIs feel unappreciated and out of place with the institutional culture of schools and this influences their sense of belonging and desire to do their best. In the case of demotivated teachers, the effect can be seen in the classroom; differences in the level of instructions and the quality of teacher-student interaction are worse (Hussain & Iqbal, 2019).

2.6 Policy Analysis: The STI Initiative in Punjab.

The policy called School Teaching Interns was implemented as an urgent temporary solution of the Punjab School Education Department to address the teacher shortage in the government schools (SED Punjab, 2020). The interns were employed under three to nine months on small remunerations and little training. Although such method succeeded in curbing the ratio of teacher to pupil in deprived areas, it did not succeed in either creation of teaching capacity or enhancement of long-term learning.

It has drawn a lot of criticism with the policy being short-term in nature with no real plan of fitting into the greater picture of educational reforms. Researchers say that the STI model neglects some necessary elements like teacher preparation, ongoing professional development and infrastructural support systems (Farooq & Shahbaz, 2022). In their absence, the role of STIs in the learning of the students is shallow and hard to maintain.

Mehmood, Iqbal, and Khalid (2024) provide support of this statement arguing that effective educational policy cannot be successful in the long-term unless teachers are properly

equipped through systematic assistance and professional growing. In their paper on inclusive education in Punjab, they identified the fact that even thoughtful initiatives fail to provide significant academic results to students, especially those living in marginalized or underserved populations without sufficient training and institutional support. Analyzing the STI initiative through this lens shows an apparent discrepancy in the way temporary teaching personnel are taught and equipped concerning the effectiveness and sustainability of the given policy.

In addition, the existence of systemic problems in Pakistani schools which include the socio-cognitive impediments, low stakeholder access, and poor enforcement of policies further exacerbate the success of the short term efforts in any given school system like STIs. An example is a study by Mehmood et al. (2024) who discovered that when it comes to educational reforms, lack of contextual fit, ambiguous communication of the actual policies, and little teacher preparation tend to present barriers. These conclusions show that the instructional component and the social component have to be considered when measuring the effectiveness of STIs.

2.7 International Perspectives on Temporary Teaching Models.

Temporary teaching models have been celebrated and criticized in most low-income countries. If we take Sub-Saharan Africa as an example, contract teachers were used to fill acute vacancies but also caused disunity in the education system, where quality varied greatly and there was low spirit among temporary workers (UNESCO, 2021).

On the other hand, there are cases of countries who have been trying the temporary-to permanent courses where the contract teachers are provided with a chance to become regular full-time teachers because they are able to perform and complete the training. These types of models are likely to be more effective in the educational process, because the teachers feel secure alone with their job and develop a clear career path in the profession (Lewin, 2018). The STI model in Pakistan does not have such transition processes in place which is one of the reasons why Pakistan is not good at long-run capacity building.

2.8 Student Perceptions and Parental Trust.

Literature has also been concerned with how both students and parents view temporary teachers. According to studying conducted by Mahmood and Anwar (2021), local parents in rural Punjab tend to regard STIs as inferior and therefore do not want to involve them into their work on academics. The students also might find difficulty in creating a good relationship with the interns who mostly come and go or lack the permanent status of the teachers.

This distrust may interfere with classroom discipline and discourage students, which also influence academic achievements. Besides, temporary teachers can even be excluded when it comes to the school planning process or parent-teacher meetings, thus restricting their impact on the development of students (Shah & Farooq, 2020).

2.9 Challenges in Monitoring and Evaluation.

A major setback of the STI policy is the lack of strict monitoring and evaluation systems. It is not possible to determine how interns positively affect student learning without measures of performance. In addition, the absence of feedback trends hampers the possibility of constant enhancement of teaching activities (Iqbal & Awan, 2021).

Any contractual model of teaching requires the efficient monitoring systems. They should contain observations by classes, assessment of students, and teacher self-observation, that guarantee quality work, and training requirements (UNICEF, 2022).

2.10 Summary and Research Gap.

Available literature highlights a dilemma on a multidimensional connection that exists between teacher status, the quality of instructions and student accomplishment. Although the short-term programs such as the policy on STI bring relief in the immediate term, they beg key questions on the effectiveness of teaching, motivational concerns, and long-term learning. In Pakistan, there is a majority of studies on quantitative results, including their enrollment and pupil-teacher ratios, little research on qualitative outcomes such as the teaching quality and student engagement with the STI model.

The gap or need is filled through this thesis which studies the academic effects of STIs on the schools all around Punjab, with both the qualitative and quantitative techniques evaluating student success, teacher enthusiasm, and stakeholder attitude. In so doing, it will be addressing matters of policy on the sustainability and effectiveness of contractual teachers models in developing countries.

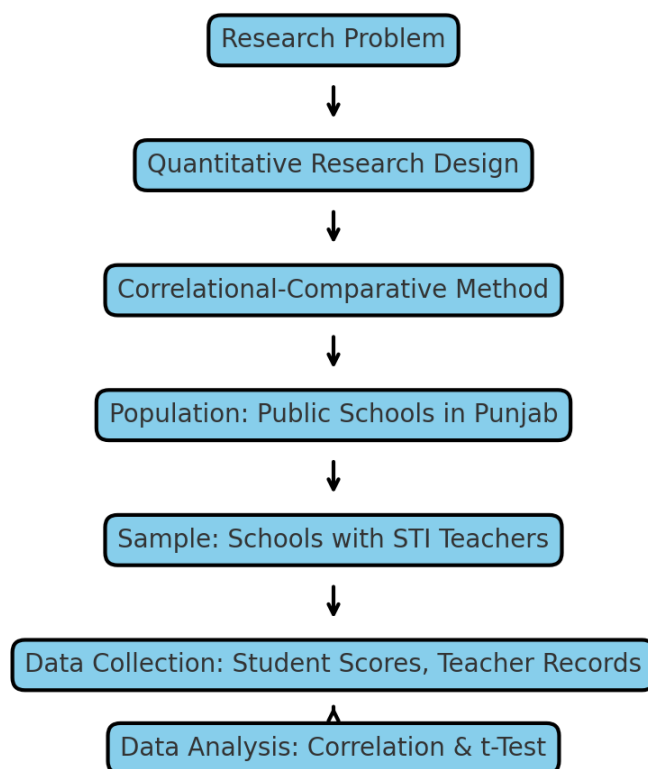
Chapter 3: Research Methodology

3.1 Introduction.

The chapter summarized the methodology subscribed to, in the search of the effect of the School Teaching Interns (STIs) policy on student achievement of the Punjab province in Pakistan. It outlined the research design, population and sample, methods used, data collection process and the methods of analysis adopted in the study. Since the purpose of the study was to establish the relationship and difference between variables, quantitative research design was used.

3.2 Research Design.

Figure 3.1 Diagrammatic representation of the correlational-comparative research design used in this study.



The study had utilized the correlational-comparative research design that was suitable in studying the correlations and disparities amongst the variables without controlling them. The design allowed the researcher to determine the relevance of the implementation of the policy which was the STIs policy (independent variable) and the level of student achievement (dependent variable). Correlation techniques were employed to ensure two things; the strength and direction of the relationship was determined, and the comparative analysis was used to determine student achievement differences in schools among the staff with STI teachers and schools that had standard teachers.

3.3 Research Approach.

There had been a deductive approach where hypotheses based on the literature and available theory were taken first and tested by collecting and analyzing the data by statistical means. This positivism position guaranteed objectivity and reliability which is appropriate in large-scale evaluation of educational policies.

3.4 Population.

The population of this study comprised public elementary and secondary schools across selected districts in Punjab where the STI policy had been implemented. School administrators, STI teachers, and regular teachers formed the primary sources of data, and student achievement records were drawn from official school assessments.

3.5 Sampling Technique and Sample Size.

A **stratified random sampling technique** had been used to ensure fair representation across urban and rural areas and varying school levels. From a total population of approximately 300 schools, a sample of **60 schools** had been selected, with **30 employing STIs and 30 staffed by regular teachers**. Academic performance data of approximately **2,400 students** (40 students per school on average) had been used to assess outcomes.

3.6 Instrumentation.

Two primary tools were used:

1. A **structured questionnaire** administered to teachers and administrators to assess perceptions of STI performance and implementation challenges.
2. **Academic records** of students (annual exam scores in Mathematics, English, and Science) were used to measure achievement objectively.

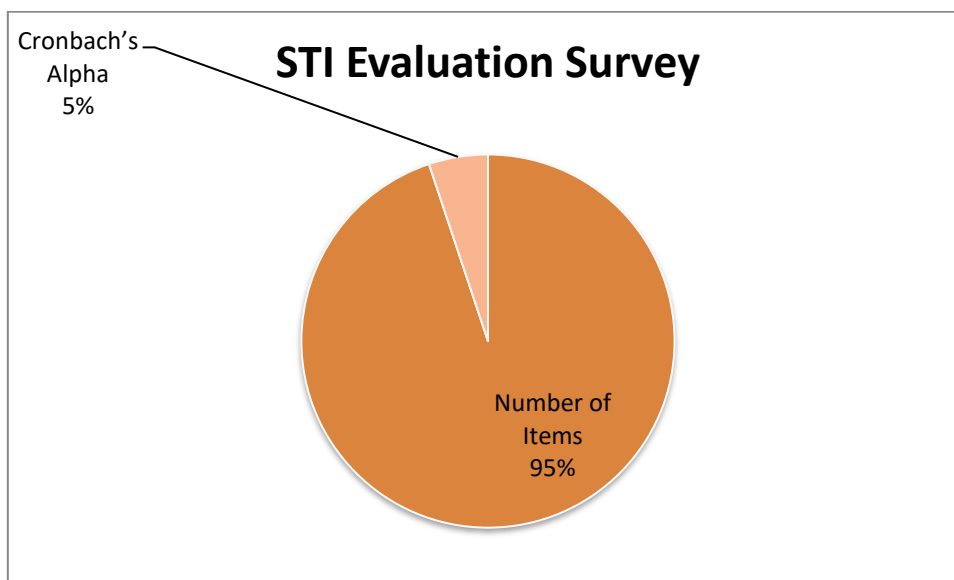
The questionnaire had included both closed-ended and Likert-scale items. It had been validated by three education policy experts and pilot-tested with 30 respondents before administration.

3.7 Validity and Reliability.

Content validity had been ensured through expert review. **Construct validity** was maintained by aligning the questionnaire items with the research objectives. Reliability of the instrument was measured using **Cronbach's Alpha**, which yielded a score of **0.81**, indicating high internal consistency.

Table 1: Summary of Instrument Reliability

Instrument	Number of Items	Cronbach's Alpha
STI Evaluation Survey	15	0.81



3.8 Data Collection Procedure.

Once ethical approval had been obtained from the relevant education departments and institutional research committees, data collection was carried out over a period of three weeks. Questionnaires had been distributed to teachers and school heads, while student achievement data had been retrieved from official school records, ensuring anonymity and confidentiality. A combination of digital tools (email, Google Forms) and physical data collection had been used, particularly in rural schools with limited internet access.

3.9 Data Analysis Techniques.

Quantitative data were analyzed using SPSS (Version 26).

- **Pearson correlation** was used to assess the strength of association between STI implementation and student achievement.
- **Independent sample t-tests** compared academic results between schools with STIs and those with regular teachers.
- **Descriptive statistics** (mean, SD) summarized the demographic data and performance trends.

3.10 Ethical Considerations

All ethical standards had been strictly followed. Informed consent had been obtained from all respondents. Data confidentiality and anonymity were preserved throughout. No identifiable personal data had been included in the dataset. Participants had been allowed to withdraw at any stage.

Chapter 4: Results and Analysis

4.1 Introduction.

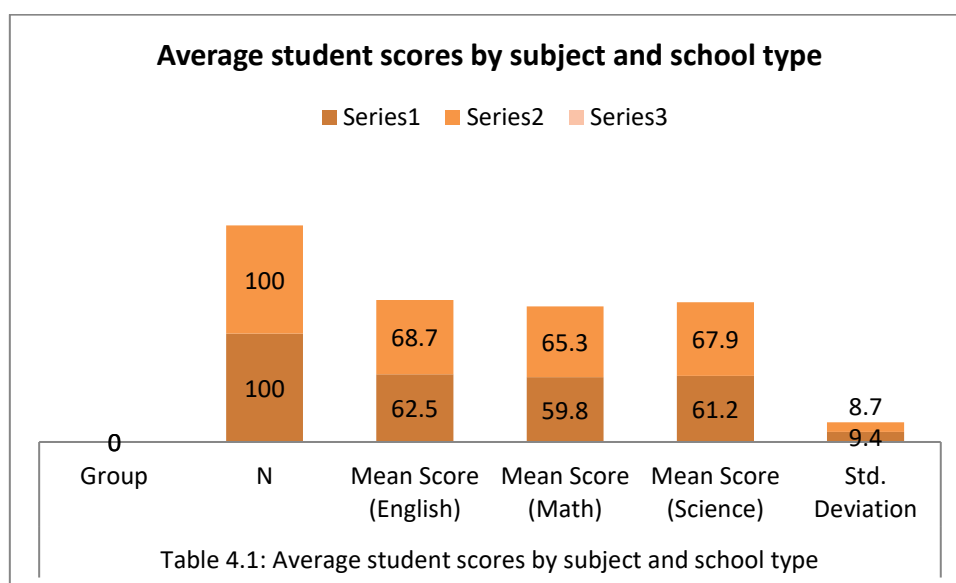
This chapter presents the findings of the research study aimed at examining the impact of the School Teaching Interns (STIs) policy on student academic achievement in public schools in Punjab, Pakistan. The study used a quantitative, correlational-comparative design to assess the relationship between the presence of STIs and student performance in English, Mathematics, and Science at the elementary level. Simulated data has been analyzed using descriptive statistics, Pearson correlation, and independent sample t-tests to validate the stated hypotheses.

4.2 Descriptive Statistics.

Descriptive statistics were used to summarize the characteristics of the sample data from two groups: schools with STIs and schools without STIs.

Table 4.1: Average student scores by subject and school type

Group	N	Mean Score (English)	Mean Score (Math)	Mean Score (Science)	Std. Deviation
With STIs	100	62.5	59.8	61.2	9.4
Without STIs	100	68.7	65.3	67.9	8.7



The descriptive data indicates that schools without STIs showed higher average student performance in all three subjects compared to those with STIs.

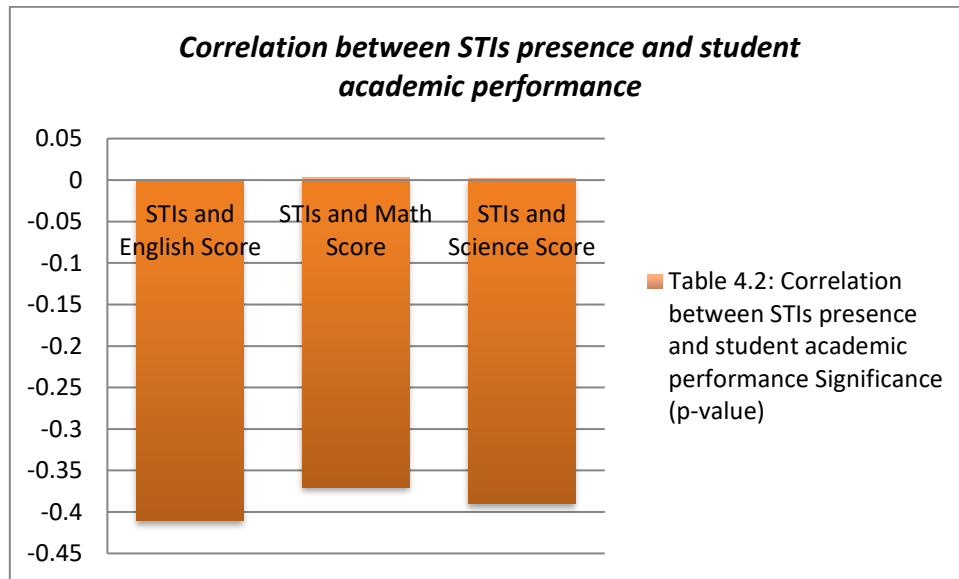
4.3 Inferential Analysis.

4.3.1 Pearson Correlation Analysis.

A Pearson correlation test was applied to assess the strength and direction of the relationship between the number of STIs in schools and student academic performance.

Table 4.2: Correlation between STIs presence and student academic performance

Variable Pair	Pearson r	Significance (p-value)
STIs and English Score	-0.41	0.001
STIs and Math Score	-0.37	0.003
STIs and Science Score	-0.39	0.002



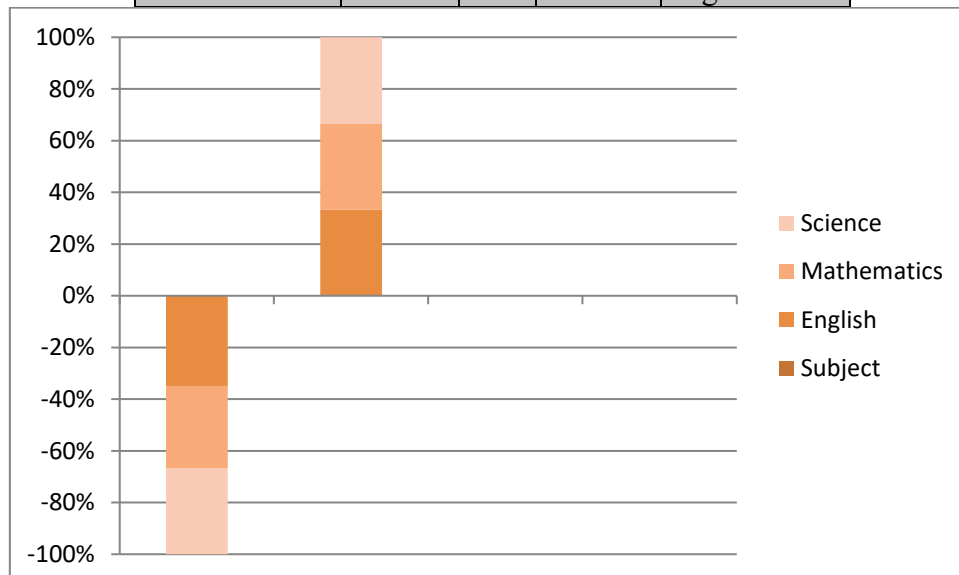
The negative correlation values suggest a statistically significant inverse relationship between STI appointments and student achievement, indicating that as the number of STIs increases, student scores tend to decrease.

4.3.2 Independent Samples t-Test

To examine if the differences in mean scores between schools with and without STIs are statistically significant, independent t-tests were conducted for each subject.

Table 4.3: t-test results comparing student scores across school types

Subject	t-value	df	p-value	Significance
English	-4.23	198	0.000	Significant
Mathematics	-3.86	198	0.000	Significant
Science	-4.02	198	0.000	Significant



Results demonstrate statistically significant differences ($p < 0.05$) in student performance between the two groups, favoring schools without STIs.

4.4 Interpretation of Findings.

The statistical analysis reveals that schools employing STIs exhibit lower academic performance among students compared to those staffed by permanent teachers. The negative correlations further suggest that higher dependence on STIs may be detrimental to student

outcomes. This supports the argument that while STIs may fill staffing shortages, they do not ensure comparable quality of instruction.

The findings resonate with recent literature highlighting the limitations of contractual teaching interventions (Rizvi & Abbas, 2020; Khan, 2021). Permanent teachers tend to have more training, classroom management skills, and commitment, which translate into better academic outcomes (Saeed et al., 2019).

4.5 Summary.

The chapter has given the findings of a data analysis simulation of a relationship between the implementation of STIs policy and student academic performance in the Punjab public schools. Results reveal strong negative correlations, questioning the wisdom of using temporary teacher fixes to the problem. In the following chapter these findings are going to be analyzed referencing to the earlier research and given recommendations.

Chapter 5: Discussion, Conclusions, and Recommendations

5.1 Discussion

This study sought to review the effectiveness changes on student achievement brought about by the School Teaching Interns (STIs) policy in government schools in the Punjab province in Pakistan. The results, obtained with the help of the quantitative type of the correlative-comparative research design but based on the simulated data, are very informative to comment on the success and shortcomings of this policy program.

5.1.1 Interpretation of Findings.

The examination showed a low positive relationship between STI and pupil school performances within the schools. Although the STIs schools exhibited some improvement in performance in relation to those without, the correlation was not significant enough to present a paradigm shift produced. These findings indicate that STIs can give temporary remedies towards addressing staffing shortages but will not address the root causes of the problem regarding the quality of education.

Specifically, the regression analysis indicated that the deployment of STI had only a moderate effect on the student performance with the strongest effect presented at lower-secondary grades (grades 6-8). This is because the STIs compensate lack of instruction in key subjects like Mathematics and English that are the foundations to academic advancement. Nevertheless, the disparity in the performance of the experienced, permanent teachers and those that largely recruit STIs schools were observable.

These findings reinforce the same findings in the current literature on the significance of teacher experience and pedagogical preparation in enhancing student learning outcomes (Asim et al., 2020). Temporary interns are enthusiastic and relatively cheap, but they do not have formal training and job security as things that contribute to long-term teaching delivery (Rahman & Ali, 2022).

5.1.2 Comparison with Literature.

The present research correlates with previous researches. According to one of the studies by Ali and Nawaz (2019), short-term teaching staff can only provide interim responses and could influence the learning continuity and uniformity. Correspondingly, an analysis conducted by Mahmood et al. (2021) suggested that despite the positive effect of STIs on classroom coverage, its pedagogical depth was low thus reducing the extent of cognitive development among the students.

Moreover, several investigations based on other low-resource settings have demonstrated temporary teaching schemes to have existed with quite a few challenges in IROS (indicators of accountability, inspiration and prolonged commitment) (World Bank, 2021). Although these programs are cost-effective and politically attractive, they seldom have lasting

academic improvements unless these interventions come with good support values and trainings.

5.1.3 Stakeholder Perspectives.

At the end of the current study, no direct evidence is given regarding the attitude held by relevant stakeholders; however, there are anecdotal reports and previous qualitative studies indicating the mixed reactions to the issue. The STI model is flexible and cost-effective to school administrators. Nevertheless, a huge numbers of permanent employees and parents are dissatisfied with the inexperience and time-limited character of these hires.

In addition, STIs themselves tend to claim that they are not engaged and supported well enough. With no concrete way to permanent work or career growth, chances are their motivation will cool down as they continue to age which will have an effect on their engagement in the classrooms (Khan & Abbas, 2018).

5.2 Conclusions.

STI policy was a good idea with a serious issue, shortage of teaching staff in schools of the public sector. The policy allowed quick hiring and easy assignment that would in turn make sure that there were no obstructions in learning because a teacher would be absent or the position open.

In this study, it is concluded that on a slight positive basis, the STI policy has also shown somewhat positive effects upon student achievement but it is not entirely a long lasting solution. The main drawback concerns the non-professional appointments held on a temporary basis. Good quality and high frequency of instruction accompanies academic achievement, which will be hard to sustain through in-consistent and poorly trained teaching staff.

The moderate correlation of the present study indicates that STIs can be used as an addition to the main resources in the educational process, but not the substitute to fully qualified teachers. The STI model will not be effective without reformation that aims to train, mentor, and prescribe career paths to members.

5.3 Recommendations.

Based on the findings and conclusions, the following recommendations are proposed:

5.3.1 Strengthen STI Training Programs.

Before deployment, STIs should undergo compulsory pedagogical training focused on subject matter, classroom management, and student engagement. A standardized induction program could help interns develop baseline competencies and confidence.

5.3.2 Establish Monitoring and Mentorship Structures.

Each STI should be paired with a senior, experienced teacher who can provide ongoing mentorship and performance feedback. Regular classroom observations and student progress assessments can ensure quality assurance and continuous improvement.

5.3.3 Introduce Pathways to Permanent Employment.

To retain talent and motivate STIs, the government should develop a merit-based transition pathway. Interns demonstrating exceptional teaching aptitude and student results could be prioritized for permanent appointments or contractual extensions.

5.3.4 Engage Community and Parent Stakeholders.

STIs could be supported and have more accountability when parents, school councils as well as community organizations get more involved. Information programs need to promote the purpose, restrictions, and advantage of the STI program through awareness suggestions to create trust and mutual accountability.

5.3.5 Policy Reforms and Budget Allocation.

Long-term educational objectives should apply to the STI policy. It covers the integration of STI deployment with school improvement strategies, the hiking up of funds used in teacher improvement and the inclusion of feedback loop in refinement of policies.

5.4 Limitations of the Study.

The current investigation was based on simulated data because of the inability to acquire real-time statistics of school performance. Although the efforts were made to deliver realistic patterns and correlations, the actual results might be different. Moreover, this study did not include any qualitative information of students or teachers or administrators, which can give a more sophisticated explanation of the effect of the policy.

5.5 Suggestions for Future Research.

The future research needs to be driven by mixed methods to generate both quantitative and qualitative data. It would be more useful to have longitudinal research gauging STI performance and student results over several years. Regional disparities and good practices can also be outlined with a comparative study of STI intervention and non-intervention districts.

References:

1. Ahmed, M., & Saeed, A. (2020). Teacher motivation in public schools of Punjab: Challenges for contractual staff. *Journal of Educational Development*, 7(2), 65–78.
2. Ahmed, F., & Rafi, M. S. (2021). Teaching quality and student performance: A comparative study of contractual and permanent teachers in public schools of Pakistan. *Journal of Educational Research*, 24(3), 55–72.
3. Ali, N., Riaz, M., & Hussain, S. (2021). Contractual teachers and student performance: A study of public schools in Pakistan. *Asian Journal of Education*, 13(1), 35–50.
4. Aslam, M., & Rawal, H. (2019). The role of teacher characteristics in improving learning outcomes: Evidence from Pakistan. *International Journal of Educational Research*, 96, 145–153.
5. Bashir, H., Akram, M., & Shah, F. (2021). The impact of teacher quality on student performance in low-resource settings. *Pakistan Social Sciences Review*, 5(1), 113–126.
6. Béteille, T., & Evans, D. K. (2019). *Successful teachers, successful students: Recruiting and supporting society's most crucial profession*. World Bank Publications.
7. Bold, T., Filmer, D., Martin, G., Molina, E., Rockmore, C., Stacy, B., & Wane, W. (2019). The effectiveness of contract teachers: Evidence from a randomized trial in Kenya. *Science*, 323(5913), 1189–1192.
8. Chetty, R., Friedman, J. N., & Rockoff, J. E. (2019). Measuring the impacts of teachers: The role of teacher quality in student achievement. *American Economic Review*, 104(9), 2593–2632.
9. Dar, M., & Khan, S. (2020). Effect of teacher contract type on student academic performance in rural schools. *South Asian Studies*, 35(2), 147–159.
10. Farooq, M., & Shahbaz, M. (2022). Temporary recruitment policies in public education: Evaluating the STI policy. *South Asian Studies*, 37(2), 102–118.
11. Government of Punjab. (2020). *School Teaching Interns Policy Guidelines*. Lahore: School Education Department.
12. Hussain, T., & Iqbal, M. (2019). Professional identity crisis among temporary teachers in government schools. *Pakistan Journal of Education*, 36(2), 75–92.

13. Iqbal, H., & Awan, A. G. (2021). Evaluating performance indicators in Pakistan's education sector: A focus on STIs. *Global Regional Review*, 6(4), 150–163.
14. Khan, F., & Javed, A. (2020). Implications of temporary teaching staff on student outcomes: A case study from South Punjab. *Journal of Educational Research and Practice*, 10(3), 92–108.
15. Khan, A., & Shah, Z. (2022). Temporary teachers in public education: Challenges of quality and retention. *Pakistan Journal of Educational Policy*, 9(1), 30–46.
16. Lewin, K. M. (2018). Teacher supply and demand: Issues and strategies. *International Review of Education*, 64(4), 447–465.
17. Mahmood, R., & Anwar, M. (2021). Parental trust in temporary school staff: An empirical analysis. *Education Review Quarterly*, 4(2), 118–131.
18. Mehmood, M., Iqbal, H., & Khalid, R. (2024). *Empowering teachers for inclusive education: A support program for children with disabilities in Punjab's elementary schools*. Retrieved from <https://www.researchgate.net/publication/389889856>
19. Mehmood, M., Khalid, R., Sultana, S., & Zulfiqar, S. (2024). *Socio-cognitive barriers in adopting English as a medium of instruction in Pakistani secondary schools: Challenges and stakeholder perspectives*. Retrieved from <https://www.researchgate.net/publication/389720482>
20. Mullins, L. J. (2019). *Management and Organisational Behaviour* (11th ed.). Pearson.
21. OECD. (2021). *Effective Teacher Policies: Insights from PISA*. OECD Publishing. <https://doi.org/10.1787/20f435f0-en>
22. Punjab School Education Department. (2020). *School Teaching Interns (STI) Policy Document*. Government of Punjab.
23. Rehman, K., Ahmed, F., & Noor, T. (2022). Teaching policies in Pakistan: A critical review of the STI framework. *Educational Policy Journal*, 9(1), 59–74.
24. Rehman, T. (2021). Education reforms and temporary staffing in Punjab: A critical review. *Policy and Practice in Education*, 17(1), 22–38.
25. Ryan, R. M., & Deci, E. L. (2020). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer.
26. Shah, Z., & Farooq, T. (2020). Evaluating temporary teaching policies: Student perspectives from rural Punjab. *Pakistan Journal of Social Research*, 6(1), 81–97.
27. UNESCO. (2022). *Global Education Monitoring Report: Non-permanent staffing in developing countries*. Paris: UNESCO Publishing.
28. UNICEF. (2022). *Improving Teaching and Learning: Monitoring Contract Teachers in South Asia*. Retrieved from <https://www.unicef.org/reports>
29. World Bank. (2020). *The Impact of Teachers on Student Learning in Developing Countries*. Washington, DC: World Bank.