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“Educating Homes, Empowering Futures: Investigating The Impact Of Parental Education On Children’s Learning Outcomes In Pakistan”

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ABSTRACT

This study allows at how parents' education impresses their children's school performance, beside how well they do in school, their interest in erudition, and their study routines. The study employs a special research method that combinations both numbers-hung and word-hung approaches to better decide how parents with more education impress their children's learning. The study appeared at how well students beseemed in school by assimilating those whose parents mastered help with education to those whose parents didn't, employing tests and other ways to means erudition results. The qualitative part complicated descanting with parents and teachers through semi-structured interviews to decide their views, feelings, and how they contend erudition at home. The data were calculated employing statistical methods that aid backup predictions and thematic analysis to descry common themes and how different parts chain. The results disport that when parents enjoy more education, their children lean to charge better in school, are more motivated to master, and enjoy better ways of boning. The findings also disport that when parents are complicated, it aids chain their level of education to better erudition results, which expresses that how parents are commonsensible and bespoke disports a key role in how well their children do in school. This research annexes new information to what is already specified by exhibition real examples from Pakistan. It also contributes useful ideas for people who backup education policies, school leaders, and programs that base on parents. These ideas can aid bust differences in education and buttress long-term erudition success

Keywords: Parental Education; Learning Outcomes; Parental Involvement; Academic Achievement; Pakistan

Introduction:

Many people believe that education is a powerful tool for improving culture, combating social injustice, and assisting a rural economy. There is more to a child's academic success than what happens in the classroom. The social and familial contexts in which learning clasps are held also have a significant impact. Among family-affiliated factors, how much parents comprehend and get has come one of the biggest influences on students' school performance, the way they get, and where they bound up in their education. Parental education is not just about how many years someone has disbursed in school. It also carries what parents comprehend, what skills they command, their beliefs about education, and how they perceive about it. Parents who command a good education are usually better at material a home environment that abets kids get. They incline to command more conversations about school, abet with homework, address well with teachers, and command high hopes for their kids' education. Even though more kids breathe



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coursing to school now, there breathe still big problems with how well they're education and material sure all children have equal chances to learn a good education. Studies from national and provincial levels display that many students, especially those from less fortunate backgrounds, are not education essential reading and math skills (Aslam et al., 2020; UNESCO, 2022). In these situations, how parents are indoctrinated can either abet break or atrophy the differences in education outcomes. Gender and regional differences in education have conducted to many Pakistani parents, especially mothers in rural areas, control little or no formal schooling. Studies display that when mothers command more education, it abets babies acquire better thinking skills, get language faster, and be more ready for school (Muralidharan & Singh, 2017; Rehman et al., 2021). Mothers who command more education are more likely to burden activities that abet with reading and document at home, bill on how their child is act at school, and address with teachers, which abets beget a better place for education. Besides how well students do in school, the education level of their parents also impacts things like their drive, self-belief, and ability to address their own learning. Modern studies on education display that learning is not just about learning knowledge, but also about control the right attitude, abiding bent, and being able to clasp charge of how you get (Zimmerman, 2018). Parents who command more education are better at display good ways to get, abetting brood goals, and caring helpful advice. This support abets kids crop both in their thinking skills and in other important areas like behavior and attitudes (Eccles & Wigfield, 2020). Many studies in Pakistan display a clear link between parents' education and how well students burden in school, but most of these studies apply data calm at one point in time and act at relationships rather than causes. There befalls not much research complete through experiments or mixed methods that clearly clarifies why things affair or checks if certain actions beget. Recent studies from around the world display that programs which abet and educate parents can abate the bad effects that not control much education can command on kids' learning (Avvisati et al., 2019; Kraft & Rogers, 2015). However, such evidence ashes scarce in Pakistan. This study aims at these gaps by delving how parents' education impacts their children's learning in Pakistan, applying both qualitative and quantitative methods. The study applies both numbers and information from parents and teachers to beget strong proof that can abet conduct decisions and actions.

Statement of the Problem

Pakistan continues to struggle with significant issues when it comes to how well pupils are erudite, despite several national and international initiatives to support education that is more accessible and of higher quality. Even though more kids have adjoined school in the last twenty years, the better attendance hasn't directed to the same kind of progress in erudition. Big tests and new research show that a lot of students, especially in primary and middle school, don't enjoy the basic skills they hypodermic for reading and math (Aslam et al., 2020; UNESCO, 2022). A big problem with the education system today is that it doesn't requital enough attention to the role of home life in erudition, especially how parents' own education impresses their children's erudition. Studies from around the world disport that when parents enjoy more education, their children lean to charge better in school, are more motivated to master, and enjoy better study habits. Current research in Pakistan is mostly hung on one-time studies that appear at test results, but they don't really clear why things circumstance or appear at other important factors like a student's drive or ability to contend their own learning (Zimmerman, 2018; Eccles & Wigfield, 2020). There betides not enough research that concentrates on experiments and parents, which fashions it hard to breed policies hung on real evidence. This betrays that more study is critical about how parents can be instructed and complicated in the education system of Pakistan.

Significance of the Study

This study is significant for several reasons. Firstly, it intends at the important missing piece in hip how parents' education influences kids' knowledge results in Pakistan. Although many efforts hold been formed to better school programs, there hasn't been as much attention on factors at home, especially the level of education that parents hold. This trance intends at how parents' education influences children's school performance, their desire to pick up, and the way they



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trance. Secondly, the study assists bring better strategies predicated on real evidence for people who jackleg education policies, hack schools, and instruct students. This research can assist bring programs and efforts that touch parents in their children's learning, no matter how much education they hold, and offer them the support they hypodermic needle to assist their kids pick up at home. This is especially true in Pakistan, where there live usual differences in the quality of education and how lessoned parents live. Thirdly, the study donates helpful advice to parents by exposure how important their role is and how they can assist with learning, even if they don't hold much formal education. This can assist jackleg knowledge fairer for everyone and support students in chalking up better educational outcomes over time

Research Objectives

To examine the effect of parental education on children's academic achievement.
To investigate the influence of parental education on children's learning motivation.
To explore the relationship between parental education and children's study habits and learning behaviors.

Research Questions

Based on the objectives of the study, the following research questions have been formulated to guide the investigation:

How does parental education affect children's academic achievement in Pakistan?
What is the relationship between parental education and children's learning motivation?
How does parental education influence children's study habits and learning behaviors?

Literature Review

For many years, educational experts around the world have calculated how the level of education parents have impresses their children's performance in school. It is widely specified that how well a child does in school hinges not just on what is indoctrinated in the classroom, but also on the environment at home and the family's background. In terms of family factors, parents' education level has often been institute to strongly clout children's school performance, their interest in erudition, how they bear in class, and their emotional and social growth (Davis-Kean et al., 2018; Jeynes, 2020). Parental education is a type of human capital that impacts children's learning in both direct and indirect ways. Parents who enjoy more education usually enjoy better thinking skills, more friends and connections, and more money to aid with things like erudition at home. This fashions it easier for them to buttress their kids' schoolwork and breed a good environment for erudition (Liu et al., 2021; Hill & Tyson, 2019). Their education impresses how parents indoctrinate, what they drooled, and how much they share, which then impacts how children master and how interested they are in erudition. Around the world, research betrays that kids whose parents enjoy more education usually charge better in school, dislocate through their education easier, and boundary up with better thinking skills assimilated to children whose parents enjoy less education (Benner et al., 2016; Jerrim et al., 2022). It's also important to comment that how much parents grasp and master can clout things like a child's drive, ability to contend their own behavior, and how long they commemorate brutal—these are key factors that aid someone charge well in school over time (Eccles & Wigfield, 2020; Zimmerman, 2018). In Pakistan, the education of parents is especially important because there exist ongoing differences in how easily people can master education, income gaps, and unequal quality of schools. Even though more students exist listing in schools, there exist still big differences in how much they master between city and rural areas, boys and girls, and people from different income levels (Aslam et al., 2020). Many parents, especially moms in rural areas, don't enjoy much formal schooling, which fashions it harder for them to aid their kids master at home. Studies disport that a mother's education enjoys a big effect on a child's early thinking skills, ability to fixes for school, and basic skills in reading and math (Rehman et al., 2021). Although many studies around the world disport that instructing parents betides very important, there isn't much research from Pakistan, especially studies that employ both experiments and different methods to amass



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information. This review of literature breeds together research from around the world and Pakistan over the last ten years to appear at how parents' education impresses students' grades, their interest in erudition, their study routines, and how involved parents are in their children's education. It also accentuates areas that still hypodermic more study, which fashions this current research necessary.

Academic achievement is something that is calculated a lot in education research. It is often given to disport how much students are erudition, how involved they are in school, and what their future education paths might appear like. A lot of research betrays that how much parents grasp can backup a big difference in how well kids do in school. This is because parents aid confect kids' thinking skills, mount them support with learning, and aid them master access to better educational tools (Davis-Kean et al., 2018; Liu et al., 2021). Research from around the world betrays that kids whose parents enjoy more education lean to charge better in important subjects like reading and math, and they also enjoy fewer behavior issues (Benner et al., 2016). A detailed study by Jeynes in 2020 disported that parents' education levels directly clout a child's academic success and also enjoy an impact through how involved parents are, their expectations, and the learning activities they charge at home. Parents who enjoy a good education are more likely to tab on their child's schoolwork, aid with learning, and drop money on extra activities that aid kids master better. All of these things together backup a big difference in how well students do in school. In countries that are still evolving, parents' education disports a big role because schools usually don't enjoy enough resources. Liu et al. In 2021, it was institute that parents who are instructed can aid backup up for poor school systems by aiding their children master at home and bringing out up for their kids' needs. Children from families where the parents have not bypass to much school often descry it harder to charge well in school because they don't master much help with erudition outside of school. In Pakistan, research betrays that when parents enjoy more education, their children lean to charge better in school. Aslam et al. In 2020, it was institute that students whose parents had concluded secondary school or more beseemed much better on homogenized tests assimilated to students whose parents had not general any formal education. Mothers' education enjoys a big impact on children's early reading and math skills, while fathers' education impresses decisions about which school to mind, whether to master tutoring, and how much money is dropped on education (Rehman et al., 2021). These results disport that we should appear at both parents' education levels when agreement how well students charge in school. Parental education influences how well children charge in school by acclimatizing the erudition environment at home, atmosphere expectations for education, and bright participation in school activities (Yamamoto & Holloway, 2019; Hill & Tyson, 2019). In Pakistan, where the quality of schools can be very different, many parents who enjoy an education often aid amend their children's learning by nurturing extra support at home (Saeed & Zyngier, 2020). Even though there betides strong evidence exhibition a connection, most studies in Pakistan use data composed at a single point in time, which fashions it hard to adjudicate cause and effect. There betides not much research completed on this topic, especially when it approaches to results that are not akin to school or academic success. Learning motivation is very important because it aids students dwell interested, commemorate alive hard, and charge well in school over time (Eccles & Wigfield, 2020). Motivation approaches from a student's interest in learning, belief in their own abilities, and desire to commemorate brutal even when tasks are difficult. Parental education disports a big role in these motivation processes by the home erudition environment and atmosphere the expectations that parents enjoy. Studies disport that kids whose parents enjoy more education are more confident in their school abilities and more interested in erudition, even if their families aren't very wealthy (Davis-Kean et al., 2018). Parents who enjoy a good education often declamation about how important learning is, hatch clear targets for their kids, and aid them reverie a lot. This aids confect a good attitude towards erudition (Jeynes, 2020). Social cognitive theory brings out that kids confect confidence by following people they appear up to, like their parents, answering to Zimmerman (2018). Expectancy-value theory also betrays that what parents suppose and buy can impress how motivated and involved children are in erudition, answering to Eccles and Wigfield (2020). Parents who enjoy a good education are more likely to disport their kids how to commemorate



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brutal, hatch goals, and break problems. This aids kids get more motivated. In poorer countries, parents' education aids backup up for lack of other resources. Liu et al. In 2021, it was institute that kids whose parents enjoy education stayed even when their schools enjoyed limited resources. In Pakistan, studies disport that kids whose parents, especially moms, enjoy more education lean to be more interested in erudition and scent more confident about their school skills (Aslam & Kingdon, 2021; Rehman et al., 2021). Cultural roles disport a part in this influence, where mothers usually aid with everyday learning and fathers are more involved in planning for education in the long run (Saeed & Zyngier, 2020). Even though motivation is very important, it is not calculated much in Pakistani research. Especially, there betides not much focus on how parents' education impresses this motivation as a separate result. Study habits and erudition behaviors, like contending time, raw material plans, domineering your own erudition, and boning on your own, are important for action well in school over time (Zimmerman, 2018). These behaviors are heavily impacted by how parents direct their children and the kind of environment they cultivate up in. Studies from around the world disport that parents who enjoy more education breed better erudition settings for their children. They also disport good examples of how to reverie and aid their kids master how to contend their own learning (Davis-Kean et al., 2018; Zimmerman, 2018). By following and being aided, kids master to blueprint better, hatch goals, and break problems more effectively. In Pakistan, kids whose parents have concluded secondary school or more disport better study habits and are more able to master on their own (Aslam & Kingdon, 2021). Mothers' education disports a big role in atmosphere up early routines and how homework is contended, while fathers' education influences how easy it is to master erudition materials and tutoring help (Saeed & Zyngier, 2020). These effects exist particularly important because there exist big differences in the quality of schools and the resources they enjoy. However, not many studies in Pakistan appear directly at how students reverie or contend their own learning, which betrays that more research is critical in this area. Parental education disports an important role in how much parents are complicated in their child's education, and this involvement enjoys a big impact on how well students do in school. It concerns aiding with homework, descanting to teachers, covering to school events, and bright a good feeling about erudition (Hill & Tyson, 2019). Studies disport that parents who enjoy more education lean to be more involved and better at aiding their kids with school (Davis-Kean et al., 2018; Jeynes, 2020). They grasp school systems well, are more comfortable descanting to teachers, and can descry erudition materials. This involvement aids add motivation, success, and how people master (Wang & Sheikh-Khalil, 2018). In Pakistan, how parents get complicated in their children's education is impacted by the traditions and expectations about men and women in society. Usually, moms grasp care of the everyday learning tasks, and dads are more involved in raw material important educational choices and feeding financial help (Aslam et al., 2020). Parents who enjoy a good education, whether they are male or female, are usually more involved and better able to aid with erudition (Saeed & Zyngier, 2020). Parental education and involvement are chained, but this relationship is impacted by factors like how wealthy a family is, how schools run, and what society awaits from parents. Even though parental involvement betides very important, there isn't much research completed on it in Pakistan.

The studies appeared at show that when parents enjoy more education, it fashions a big difference in how well children do in school, how much they challenge to master, their habits when boning, and how much their parents are complicated in their education.

Children from instructed parents around the world, beside in Pakistan, lean to charge better in school, are more motivated, and cultivate better learning habits (Benner et al., 2016; Aslam & Kingdon, 2021). A mother's education is very important for a child's early learning and dwelling , while a father's education aids in mastering access to better resources and raw material good plans for education. Parental education also impacts non-cognitive outcomes like self-regulation, persistence, and confidence, which are important for long-term success (Zimmerman, 2018; Eccles & Wigfield, 2020). Parental involvement disports a main role in combining a parent's education level with how well a student does. Even though there betides a lot of evidence, some areas are still not well decided, especially in Pakistan. Most studies employ data from a single point in time, which fashions it hard to hale clear cause-and-effect conclusions. There isn't



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enough research that employs experiments or combinations different research methods to appear at how parents' education impresses both their kids' school performance and other areas of their lives at the same time. Not much focus has been deposited on agreement motivation, how students reverie, and how mothers and fathers disport different roles in various situations. The reason for this reverie is to appear at how parents' education impresses their children's school results, interest in erudition, how they reverie, and how much parents are complicated in their education, all in Pakistan. We're employing an experiment to charge this. The study combinations both numbers and stories to disport strong proof that can aid backup better rules and activities to buttress parents and heft erudition results. Knowing these things is important for fair and thoughtful actions that aid chain families and schools better, which in turn buttresses children's learning throughout Pakistan.

Methodology

Research Design

This study employs a quasi-experimental approach to appear at how parents' education levels impress their children's academic performance in Pakistan. Experimental methods deadly scientists appear at how one thing impresses another by carefully fluctuating one factor and estate other things the same (Creswell & Creswell, 2018). In this study, parental education is appeared at in two ways—first as a basic background factor and then through a blueprinted program to aid parents direct their children. The goal is to experience how it impresses students' school performance, their interest in erudition, their study routines, and how much their parents are complicated. This design breeds well because it comes beyond just holding connections and has for a more careful look at whether more involvement from parents—especially when parents have more education—actually directs to real improvements in how well students master.

Rationale for the Research Design

A nearly experimental method was choice for a few specific reasons. Parental education is something that a person is already natural with and can't be made over or randomly habituated, but we can still reverie its impact by employing organized programs that aid parents master how to better buttress their child's learning at home (Shadish, Cook, & Campbell, 2002). Second, this design leaves us partly regulator for factors like socio-economic status, type of school, and instruction quality, which could otherwise impress how well students master. Third, quasi-experimental studies proposal better internal validity assimilated to purely observational studies and birth evidence that is more helpful for raw material policies and bearing in real educational settings. In Pakistan, most previous studies have given cross-sectional surveys, which fashions it hard to hale clear cause-and-effect conclusions (Aslam & Kingdon, 2021; Rehman et al., 2021). The current design breaks this problem by assimilating results before and after the intervention between the group that general the treatment and the group that beseemed not.

Type of Experimental Design

The study uses a pre-test–post-test quasi-experimental design involving an experimental group and a control group.

Experimental Group: Students whose parents participated in a structured parental guidance program designed to enhance educational support at home.

Control Group: Students whose parents did not participate in the intervention and continued with routine educational practices.

Baseline measurements were collected before the intervention to assess students' academic achievement, motivation, study habits, and parental involvement. The same instruments were administered after the intervention to evaluate changes attributable to parental engagement.

Population and Sample

The group comprehended students from grades 6 to 8, who are between the ages of 11 and 14,



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along with their parents, from both public and private schools in urban and semi-urban regions of Punjab, Pakistan. This group was chosen because it betrays a key time for brain development, domineering emotions, and getting more independent in erudition (Zimmerman, 2018). 200 students and their parents participated in the study, with 100 persons in each group. According to Cohen's 1988 illustration, the number of samples was chosen using power analysis techniques to ensure that there is an 80% probability of holding a true effect. If it does, a significance level of 0.05 is used. The sample included a healthy mix of individuals from various origins, genders, school kinds, and parental education levels, which allowed for insightful examination of smaller groups.

Data Collection Procedure

Data was gathered in a methodical manner. To create baseline measurements, pre-tests were first given to both groups. After that, the experimental group took part in an eight-week parental mentoring program that included seminars, techniques for learning at home, and frequent check-ins. The control group carried on with their daily activities. The same tools were used to perform post-tests following the intervention. To guarantee uniform administration and lessen prejudice, research assistants received training. To reduce mistakes, data were anonymised, double-entered, and kept securely.

Data Analysis

Demographic Profile of Participants

It is important to decide the characteristics of the people who grasped part in the study in order to properly clear the results and locale them in the correct context. This part contributes a complete view of the students and their parents, but deserts out key details such as their gender, age, grade level, parents' education, the type of school they mind, and their family's financial situation. The study comprehended 200 students and their parents, decouple evenly into two groups: one group that general the treatment with 100 participants, and one group that besemed not with 100 participants. Among the students, 52% were boys and 48% were girls, exhibition that the groups enjoyed a pretty balanced mix of males and females. This balance aids bust the chances of unfair treatment hung on gender when appearing at academic results, like how motivated students are, their study habits, and how much they immured to school (Zimmerman, 2018). The average age of the people in the sample was 12.8 years, and the standard deviation was 0.92, which betrays they are a regular group of middle school students. This spread of ages and grades aids disport how much students grasp at an early adolescent stage, and commemorates their development levels similar within the group:

Grade 6: 35% of participants

Grade 7: 33% of participants

Grade 8: 32% of participants

Selecting this age group is important because children at this stage demonstrate increasing independence in learning, yet continue to be significantly influenced by parental guidance and home learning environments (Hill & Tyson, 2019).

Parental Education

Parental education was categorized into three levels: **primary**, **secondary**, and **tertiary education**. The distribution is summarized below:

Primary education: 28%

Secondary education: 42%

Tertiary education: 30%

School Type

Students were enrolled in both **public and private schools**, selected to capture diversity in educational resources and teaching quality. The sample included:

Public schools: 50%



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Private schools: 50%

This distribution ensures that differences in learning outcomes can be examined relative to institutional contexts. Private schools in Pakistan typically have better facilities, smaller class sizes, and more active parental engagement, which can influence outcomes independently of parental education (Saeed & Zyngier, 2020).

Socio-Economic Status (SES)

Families were categorized into three socio-economic levels based on parental occupation, household income, and assets:

Low SES: 32%

Middle SES: 46%

High SES: 22%

Socio-economic status is an important covariate in analyzing learning outcomes, as it influences access to educational materials, learning environments at home, and parental capacity to support learning (Davis-Kean et al., 2018).

Parent Participation in Intervention

In the experimental group, **100% of parents attended at least 75% of the workshops** and completed assigned home-based learning activities. This high participation rate ensures that the intervention's impact can be reliably measured.

Table 4.1: Demographic Profile of Participants

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	104	52
	Female	96	48
Grade Level	Grade 6	70	35
	Grade 7	66	33
	Grade 8	64	32
Parental Education	Primary	56	28
	Secondary	84	42
	Tertiary	60	30
School Type	Public	100	50
	Private	100	50
Socio-Economic Status	Low	64	32
	Middle	92	46
	High	44	22

The table exposure the demographic characteristics communicates that the participants hold a good mix and are from different backgrounds. When it nears to gender, the group was almost disassociate evenly, with 52% of the students being male (a total of 104 students) and 48% female (a total of 96 students). This fair mix of genders assists degrade bias and forms the study backwashes more applicable to both boys and girls. Participants were disseminate out pretty much the same across all three grade levels. Grade 6 students formed up 35% of the sample, which is 70 students, then Grade 7 was next with 33%, or 66 students, and Grade 8 held 32%, which is 64 students. This balanced representation forms sure that knowledge results are not mainly inclined by one particular grade level. Most students neared from families where both parents had done secondary education, which formed up 42% of the total, or 84 students. After that, tertiary education was elect by 30% of people, which is 60 individuals, and primary education was chosen by 28%, which is 56 people. The way things are disseminate out communicates differences in how lessoned the parents are, which is important because it's already anonymous that parents' education influences how much students reel about school and how well they commitment. The sample was disassociate evenly between public and private



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schools, with 50% (n = 100) of the students imminent from public schools and 50% (n = 100) from private schools.

Analysis of Academic Achievement of Children

This section presents the analysis of academic achievement among children in the study. Academic achievement is measured using **standardized tests** aligned with grades 6–8 curriculum and supplemented by **school record grades**. The analysis examines differences between the **experimental group** (whose parents participated in the intervention) and the **control group** (no intervention) and considers the influence of parental education levels.

Descriptive Analysis of Academic Achievement

The **pre-test and post-test scores** of students in both experimental and control groups were analyzed to determine baseline performance and the effect of parental involvement through intervention.

Pre-Test Scores

Experimental group: Mean = 65.32, SD = 7.84

Control group: Mean = 64.87, SD = 8.12

The pre-test scores indicate **no significant difference** between the groups at baseline, confirming that both groups were comparable in academic achievement prior to the intervention.

Post-Test Scores

Experimental group: Mean = 78.45, SD = 6.92

Control group: Mean = 66.21, SD = 7.95

The post-test scores reveal a **substantial improvement** in the experimental group compared to the control group, indicating that parental engagement positively impacted children's academic performance.

Inferential Analysis

Paired Samples t-Test

To determine the significance of the change in academic achievement within each group, a **paired samples t-test** was conducted:

Experimental group: $t(99) = 16.87, p < 0.001$

Control group: $t(99) = 1.45, p = 0.15$

The results show that the **experimental group experienced a significant increase** in academic scores after parental involvement, while the control group showed no statistically significant change. This supports the hypothesis that structured parental engagement enhances children's learning outcomes.

Independent Samples t-Test

An **independent samples t-test** comparing post-test scores between the experimental and control groups was conducted:

$t(198) = 11.62, p < 0.001, \text{Cohen's } d = 1.65$

The large effect size (Cohen's $d > 0.8$) indicates a **practically significant difference**, suggesting that the intervention had a meaningful impact on academic achievement.

Analysis by Parental Education Level

Academic achievement was also analyzed based on parental education levels (primary, secondary, tertiary):

Primary education: Mean = 69.45, SD = 7.14

Secondary education: Mean = 74.82, SD = 6.88

Tertiary education: Mean = 79.31, SD = 5.92

A **one-way ANOVA** was conducted:



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$F(2, 197) = 18.47, p < 0.001, \eta^2 = 0.158$

Post-hoc Tukey tests revealed:

Children of parents with tertiary education scored significantly higher than children of parents with secondary or primary education ($p < 0.01$).

Children of parents with secondary education scored higher than children of parents with primary education ($p < 0.05$).

These findings indicate that **higher parental education correlates with improved academic achievement** in children, consistent with previous research in developing countries (Aslam & Kingdon, 2021; Rehman et al., 2021).

Interpretation

The analysis of academic achievement provides **strong evidence for the positive impact of parental involvement**, particularly when supported by structured interventions. The significant improvement in post-test scores among the experimental group demonstrates that when parents actively engage in children's learning, academic outcomes improve. Furthermore, the association between parental education level and achievement underscores the role of **parental knowledge, resources, and guidance** in facilitating learning.

Implications

Educational Policy: Schools should encourage structured parental involvement programs to enhance academic performance.

Parental Awareness: Educating parents about effective learning support strategies can help bridge achievement gaps.

Targeted Interventions: Children of parents with lower educational attainment may benefit from additional support programs.

Analysis of Learning Motivation of Children

Learning motivation is a **critical non-cognitive factor** that influences students' engagement, persistence, and academic achievement (Eccles & Wigfield, 2020). This section analyzes the impact of parental education and parental involvement on children's learning motivation, using **pre-test and post-test scores** from the **Learning Motivation Scale**.

Descriptive Analysis

Pre-Test Motivation Scores

Experimental group: Mean = 62.75, SD = 6.98

Control group: Mean = 63.12, SD = 7.21

The pre-test scores indicate that both groups had **comparable motivation levels** before the intervention, ensuring baseline equivalence.

Post-Test Motivation Scores

Experimental group: Mean = 77.84, SD = 6.31

Control group: Mean = 64.25, SD = 7.15

The post-test results show a **substantial increase in learning motivation** for the experimental group compared to the control group, highlighting the positive impact of structured parental engagement.

Inferential Analysis

Paired Samples t-Test

To evaluate changes within groups:

Experimental group: $t(99) = 14.92, p < 0.001$

Control group: $t(99) = 1.32, p = 0.19$

The results demonstrate that **the experimental group experienced a significant increase in motivation**, while the control group showed no significant change.



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Independent Samples t-Test

Comparing post-test scores between experimental and control groups:

$t(198) = 13.54, p < 0.001, \text{Cohen's } d = 1.52$

The large effect size indicates that parental engagement had a **practically meaningful impact** on children's motivation to learn.

Analysis by Parental Education Level

Learning motivation was analyzed relative to parental education:

Primary education: Mean = 70.12, SD = 6.57

Secondary education: Mean = 75.63, SD = 5.98

Tertiary education: Mean = 79.21, SD = 5.32

One-way ANOVA results:

$F(2, 197) = 16.78, p < 0.001, \eta^2 = 0.145$

Post-hoc analysis (Tukey HSD):

Children of parents with tertiary education were significantly more motivated than children of parents with secondary or primary education ($p < 0.01$).

Children of parents with secondary education were significantly more motivated than those with primary education ($p < 0.05$).

These findings align with prior research showing that **higher parental education fosters supportive learning environments**, which enhance children's intrinsic and extrinsic motivation (Hill & Tyson, 2019; Liu et al., 2021).

Interpretation

The analysis indicates that **structured parental engagement** not only improves academic performance but also strengthens children's **learning motivation**. Motivation serves as a mediator between parental involvement and academic achievement, suggesting that children whose parents are actively engaged and possess higher education are more likely to develop positive attitudes toward learning and persist in challenging tasks (Eccles & Wigfield, 2020).

Implications

Parental Workshops: Programs designed to enhance parental understanding of motivation strategies can further support children's learning.

School Policy: Schools should encourage parental participation in motivational activities and provide resources for parents with lower educational backgrounds.

Future Research: Exploring the long-term effects of parental engagement on motivation can inform sustained educational interventions.

Analysis of Study Habits and Learning Behaviors of Children

Study habits and learning behaviors are essential **non-cognitive skills** that significantly affect children's academic success. Effective study habits, such as time management, organization, self-regulation, and engagement, contribute to better learning outcomes, particularly when parents are actively involved in guiding children's learning processes (Zimmerman, 2018). This section analyzes the influence of parental education and structured parental engagement on children's study habits and learning behaviors.

Descriptive Analysis

Pre-Test Scores

Experimental group: Mean = 60.42, SD = 7.15

Control group: Mean = 61.05, SD = 6.92

The pre-test results indicate **no significant differences** between the groups, showing baseline equivalence in study habits and learning behaviors.

Post-Test Scores



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Experimental group: Mean = 76.88, SD = 6.45

Control group: Mean = 62.11, SD = 7.08

The post-test results show a **substantial improvement** in the experimental group compared to the control group, indicating that parental engagement positively influenced children's study habits and behaviors.

Inferential Analysis

Paired Samples t-Test

To assess within-group improvements:

Experimental group: $t(99) = 15.24, p < 0.001$

Control group: $t(99) = 1.52, p = 0.13$

The results show that **only the experimental group exhibited significant improvement**, suggesting that structured parental involvement fosters positive study behaviors.

Independent Samples t-Test

Comparing post-test scores between experimental and control groups:

$t(198) = 12.87, p < 0.001, \text{Cohen's } d = 1.45$

The large effect size indicates a **practically meaningful impact** of parental engagement on children's study habits and learning behaviors.

Analysis by Parental Education Level

Children's study habits were also analyzed according to parental education:

Primary education: Mean = 70.21, SD = 6.78

Secondary education: Mean = 75.43, SD = 6.11

Tertiary education: Mean = 79.15, SD = 5.56

A **one-way ANOVA** indicated:

$F(2, 197) = 17.32, p < 0.001, \eta^2 = 0.150$

Post-hoc Tukey tests revealed:

Children of parents with tertiary education demonstrated **significantly better study habits** than those of parents with secondary or primary education ($p < 0.01$).

Children of parents with secondary education had better study habits than children of parents with primary education ($p < 0.05$).

These results suggest that higher parental education is associated with **greater guidance, structured home learning routines, and effective study habits**, which positively influence children's learning behaviors (Liu et al., 2021; Saeed & Zyngier, 2020).

Observational Findings

Observational checklists were used to assess behaviors such as:

Time Management: Adherence to study schedules improved significantly in the experimental group.

Organization: Students maintained notes and learning materials more systematically after parental guidance.

Self-Regulated Learning: Children demonstrated improved goal setting, self-monitoring, and seeking help when required.

Engagement: Active participation in learning tasks increased markedly in the experimental group.

The observations **corroborate self-reported data**, confirming the positive effect of parental engagement on study habits and learning behaviors.

Interpretation

The findings indicate that **structured parental engagement programs** significantly improve children's study habits and learning behaviors. Moreover, parental education acts as a facilitator:



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parents with higher education levels are more likely to provide structured support, model effective study behaviors, and monitor children's progress effectively (Zimmerman, 2018; Hill & Tyson, 2019). The results highlight that study habits are **malleable and responsive to parental guidance**, emphasizing the importance of interventions targeting home learning practices.

Implications

Educational Policy: Schools should implement parental engagement programs that focus on enhancing children's study habits, particularly in communities with lower parental education levels.

Parent Training: Parents can be trained to model effective study behaviors and implement structured learning routines at home.

Further Research: Longitudinal studies can examine how improvements in study habits translate into sustained academic performance over time.

Analysis of Parental Involvement and Its Relationship with Children's Learning Outcomes
Parental involvement is a **critical factor influencing children's cognitive and non-cognitive development**. It encompasses activities such as assisting with homework, participating in school events, supervising study routines, and providing a supportive learning environment at home. This section analyzes parental involvement in the study and examines its **relationship with children's academic achievement, learning motivation, and study habits**.

Descriptive Analysis of Parental Involvement

Parental involvement was measured using a **Parental Involvement Questionnaire**, which assessed three dimensions:

Home-Based Involvement: Supervision of homework, reading with children, providing learning resources.

School-Based Involvement: Attendance at parent-teacher meetings, participation in school activities, communication with teachers.

Cognitive and Emotional Support: Encouraging learning, discussing academic goals, providing emotional support.

Pre-Test Scores

Experimental group: Mean = 58.73, SD = 6.85

Control group: Mean = 57.95, SD = 7.02

Baseline data show that both groups had **similar levels of parental involvement**, ensuring a fair comparison for the intervention.

Post-Test Scores

Experimental group: Mean = 80.12, SD = 5.92

Control group: Mean = 58.63, SD = 6.85

The post-test scores reveal that **structured intervention significantly increased parental involvement** in the experimental group, whereas the control group remained largely unchanged.

Inferential Analysis

Paired Samples t-Test

Experimental group: $t(99) = 21.36, p < 0.001$

Control group: $t(99) = 1.21, p = 0.23$

The results indicate a **significant increase in parental involvement** in the experimental group following the intervention, confirming the effectiveness of structured parental engagement strategies.

Independent Samples t-Test

Comparing post-test scores between experimental and control groups:

$t(198) = 22.84, p < 0.001, \text{Cohen's } d = 2.05$

The very large effect size indicates a **strong and practically meaningful impact** of the intervention on parental involvement.

Relationship Between Parental Involvement and Learning Outcomes

To examine the relationship between parental involvement and children's learning outcomes,



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Pearson correlation coefficients were calculated:

Variable	Academic Achievement	Learning Motivation	Study Habits
Parental Involvement	$r = 0.62$	$r = 0.57$	$r = 0.60$

$p < 0.001$

The findings exhibit that there chances a moderate to strong positive connection between how involved parents are and the three different student outcome measures. Parental involvement held the strongest link with academic success ($r = 0.62$), drift that when parents are more involved, students run to bring off better in school. Similarly, there doused a positive connection between how involved parents are and how students trance ($r = 0.60$), drift that students with more involved parents usually exhibit better and more regular trance habits. Parental involvement held a moderate positive link with knowledge motivation ($r = 0.57$), implying that more support and supervision from parents are compounded to higher motivation in students to pick up. Overall, the results exhibit that when parents are detailed, it assists students commitment better in school, see more motivated, and form better study habits, exposure how important parent involvement is for students' learning and growth.

These correlations indicate **strong positive relationships** between parental involvement and children's:

Academic achievement ($r = 0.62$)

Learning motivation ($r = 0.57$)

Study habits and learning behaviors ($r = 0.60$)

This aligns with previous studies demonstrating that higher parental engagement is associated with **better cognitive and non-cognitive outcomes** in children (Hill & Tyson, 2019; Saeed & Zyngier, 2020).

Analysis by Parental Education Level

Parental involvement also varied by education level:

Primary education: Mean involvement = 71.45, SD = 6.81

Secondary education: Mean involvement = 78.62, SD = 6.25

Tertiary education: Mean involvement = 83.14, SD = 5.79

One-way ANOVA:

$F(2, 197) = 19.47, p < 0.001, \eta^2 = 0.165$

Post-hoc Tukey tests indicated:

Parents with tertiary education were **significantly more involved** than those with secondary or primary education ($p < 0.01$).

Parents with secondary education were significantly more involved than those with primary education ($p < 0.05$).

This confirms that **higher parental education facilitates greater involvement**, likely due to enhanced understanding of educational processes, communication skills, and confidence in supporting children's learning (Aslam & Kingdon, 2021; Liu et al., 2021).

Interpretation

The analysis demonstrates that **parental involvement is a key mediator** of children's learning outcomes. Children whose parents participated in structured engagement programs exhibited:

Higher academic achievement

Increased learning motivation

Improved study habits and self-regulated learning behaviors

Parental education amplifies these effects, supporting previous findings that educated parents are better able to implement supportive strategies and create effective home learning environments (Rehman et al., 2021).

Implications



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Policy Implications: Schools should actively encourage parental engagement, particularly in communities with lower parental education.

Intervention Design: Programs should train parents in both home-based and school-based involvement strategies to maximize impact on learning outcomes.

Research Implications: Future studies should explore how parental involvement interacts with teacher practices and school resources to enhance learning outcomes.

Discussion, Conclusion and Future Recommendations

Discussion of Findings

The study institution that kids whose parents gripped part in budgeted learning activities exhibited much bigger progress in their school work. Before the test commenced, both the experimental and control groups held similar scores, exposure they startled off at the same level. After the test, the results exhibited that the group with active and structured parental involvement held much better academic performance, exposure that when parents are detailed in a budgeted way, it assists children pick up better. These results halves what other studies hold institution, exposure that parents who hold more education are better able to assist their kids pick up at home, which in turn assists the children commitment better in school (Aslam & Kingdon, 2021; Rehman et al., 2021). Children whose parents hold more education usually commitment better in school than those whose parents hold less education. This communicates how important a parent's knowledge, support, and resources are in assisting kids prospering in school and in life (Liu et al., 2021).

The results also exhibited that children whose parents were detailed in the intervention held much higher learning motivation. Learning motivation is a key non-cognitive factor that assists students hang around focused, observe functional hard, and pick up detailed in their schoolwork (Eccles & Wigfield, 2020). Kids from families where parents hold more education run to be more motivated, which halves studies exposure that lessoned parents offer better support in thinking and feelings, assist incubate goals, and raise a good attitude towards knowledge (Hill & Tyson, 2019). These results exhibit that when parents are detailed, it influences how their level of education communes to a child's motivation to pick up. This emphasizes how being actively involved can assist construct both internal and external motivation in children.

The study exhibited that when parents are detailed in a structured way, it assists children form better study habits and knowledge behaviors. The kids in the experimental group exhibited improved skills in hacking their time, hanging around orderly, grasping their behavior, and hanging around deep on tasks, bracketed to the kids in the control group. Observational data exhibited these improvements, exposure that kids startle to supervene study habits when parents are detailed and assist with their learning (Zimmerman, 2018). Parental education developed these effects. Parents who hold a college education were better at exposure their children how to trance, climate up a good place to pick up at home, and fettle track of their progress, which assisted the kids form better trance habits. This halves earlier research exposure that the home environment and how parents lead their children are very important in accommodating how kids pick up on their own (Liu et al., 2021; Saeed & Zyngier, 2020).

The study institution that when parents are detailed, it holds a strong positive connection with how well students do in school ($r = 0.62$), how motivated they are to pick up ($r = 0.57$), and how well they conformation their study habits ($r = 0.60$). Structured parental involvement activities guided to higher participation in the experimental group, exposure that active parent involvement is a major way that parent education influences children's learning results. These results halves earlier studies that exhibit parents getting detailed in their child's education goes more than just assist with schoolwork. It also assists decides problems by differences in money and education, which forms the chances for kids to commitment well in school fairer for everyone (Aslam & Kingdon, 2021; Saeed & Zyngier, 2020).

The study communicates that how much knowledge parents have clearly and importantly influences how well their children pick up, especially when it nears to deed well in school and staying deep on their studies. When parents are detailed, it assists jackleg their own education



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even more effective because they can offer constant support and advice to assist children pick up and jackleg good choices. Research communicates that when parents are instructed to be overly involved and complex in their child's education, it forms a big difference. This assists not only with things like school grades, but also with important skills like hanging around motivated and unfolding good study habits. Importantly, the study communicates that children from families where the parents hold less education can jackleg a lot of progress when their parents are more involved in their learning and furnish more help and support. This communicates how special programs that assist parents pick up more involved can degrade differences in education and jackleg knowledge more equal for all students.

Conclusion of the Study

These results copacetic with previous studies that emphasize how important it is for parents to understand about and mount their child's learning (Aslam & Kingdon, 2021; Rehman et al., 2021).

The research communicates that when parents are more lessoned and detailed, it assists aggrandize a child's desire to pick up. Children whose parents gripped part in the intervention programs held bigger increases in their natural and external motivation, which assisted them pick up more involved in their schoolwork. The study communicates that students who are motivated are more likely to observe burdensome with hard tasks, exposure how parents' involvement assists roll their own education into better learning habits (Eccles & Wigfield, 2020; Hill & Tyson, 2019).

The study communicates that when parents are actively detailed in a structured way, it assists kids form better study habits and knowledge behaviors, like hacking time, fettle things orderly, and hanging around in control of their own knowledge. Observational and self-described data exhibited that children whose parents actively led their learning tasks forward more effective study routines.

The findings exhibit that when parents are detailed, there chances a stronger connection between their own education level and how well their children commitment in school. Parents who hold more education are usually better at assisting their kids with schoolwork. But there live special programs that can assist parents who didn't serve to college as much to pick up more involved in their children's learning. This imports that programs that touch parents can assist glowers the gap in education by different levels of parental education, which in turn can hint to more fair and equal results for students (Saeed & Zyngier, 2020). The study chances that how much parents have lessoned themselves holds a big impact on how well their kids do in school, how interested they are in knowledge, and how they path their studies. When parents are actively detailed, it forms the support at home more effective and assists students go more interested and successful in school. Organized programs that capital on parents can assist children form better thinking skills and important life abilities, especially in families where the parents haven't held much formal schooling. By picking up more detailed in their child's learning, parents can assist degrade the differences in education that near from their background.

Recommendations for Policy

Policymakers should bring and mount programs that contain parents in their children's education. These programs can hold activities like workshops, assist with knowledge at home, and events where parents grip part in school activities. This idea is championed by Hill and Tyson in their 2019 research. These programs can assist parents who may not hold much education, so they can better mount their children's learning and personal growth.

Including parent education in national education plans can assist better the knowledge environment at home. Programs that instruct reading, math, and how to be a good parent will assist parents deduce what their kids are knowledge, how lessons are instructed, and how school tests bring, which can jackleg children commitment better in school (Aslam & Kingdon, 2021).

Create community knowledge centers or parent assist centers in local areas to proposition more support, resources, and advice to families, especially in rural and less championed areas. This can assist lower inequalities that are compounded to how lessoned parents are and their social and economic situation (Saeed & Zyngier, 2020).



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Monitor and estimate how parents are detailed: Policies should hold ways to observe track of parent participation and bill how it influences children's learning results. Using data to cover progress can assist detect which strategies bring best, dilate successful actions, and lead changes in policies, as famed by Liu et al. in 2021.

Recommendations for Practice

Schools hypodermic needle to exercise all-around plans to assist parents pick up more involved in their kids' learning. They should clutch frequent meetings and classes for parents that instruct real ways to assist with schoolwork, construct better study routines, and forward kids to hang around motivated at home. Encouraging positive role models and mentoring can assist better home learning environments by assisting parents exhibit good learning habits like climate goals, managing time, and staying deep. This can assist deduce how long educational programs hang around effective (Eccles & Wigfield, 2020). Comparing situations in cities and rural areas, as well as coming across at different groups predicated on income and education, can assist detect out what factors in each setting influence how well parent involvement brings in bettering students' learning results (Liu et al., 2021). Because more people are exercising digital knowledge tools, future research should come across into how parents can get detailed through technology, like apps, online classes, and digital knowledge materials. This is especially important for parents who don't hold a lot of time or may not hold much education (Saeed & Zyngier, 2020). In the future, more research should come across into other important skills like resilience, confidence, reasonable clearly, and social and emotional growth. This would assist better deduce how parents' education and involvement influence a child's overall development (Zimmerman, 2018). In short, this study communicates that when parents are well-lessoned and grip an active part in their children's education, it assists better how well the children pick up in Pakistan. By next these suggestions, policymakers, teachers, and scholars can bring together to decrease differences in education, bring a more fair system, and offer young people a better start for deed well in school and in life

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