

Teachers' Perception of Homework Effectiveness in Primary Grades

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Abstract

Homework has been a part of a traditional lesson plan for a long time. It has been a means to reinforce knowledge transferred in the classroom. This study, using the quantitative method, analyzed school teachers' perceptions of homework in primary grades. A purposive sampling technique was used to select 88 primary school teachers, teaching different subjects and having different teaching experiences, to participate in the survey. Results derived from data showed that the majority of teachers, teaching different subjects favored giving homework to primary students. Teachers with most teachers in this group had a neutral opinion of homework. Though parents in this study supported homework, they were not in favor of utilizing most of their time in assisting their children to complete their homework. The findings of this study are important to teachers, school administrators, and education policymakers, who need to instill not only the importance of homework but also ensure that homework works as a bridge to foster the parent-child relationship and develop skills to adjust in society. This study recommends that future researchers interview teachers and parents to collect rich data that can be triangulated with the survey to draw more effective conclusions.

Keywords: homework effectiveness, primary grades, students, teachers' perception.

Introduction

Both parents and teachers are familiar with homework as a well-known practice of schools in modern times. This study focused on investigating teachers' perspectives on the effectiveness of homework, especially in primary grades. Costa

et al. (2016) considered homework as a task to be completed by students outside the school premises. This practice is mapped out to ensure that academic learning and related activities are taking place in environments other than classrooms (Emami et al., 2014). Though homework is regarded as a requisite element, it is a daunting reality for adolescents, and for parents, it is a demanding activity which requires allocating a lot of time to help their children in completing it (Pressman et al., 2015).

However, researchers have been debating the advantages and disadvantages of homework for a long time. Bennett and Kalish, (2006) and Horowitz and Graf, (2019) accentuate that homework causes stress for parents and students. The National Education Association (NEA) suggests 10 to 20 minutes per night of homework time for students in grade 1 and an additional 10 minutes for each subsequent grade. Nevertheless, parents think that homework given by teachers requires more time (Bennett and Kalish, 2006) than suggested by the National Education Association. As for the students, they find home tasks difficult and refrain from spending time on it, especially when the tasks are pertinent to their lessons (Zhou et al., 2020). In some cases, students skip homework that does not earn them any marks or grades, while some refuse to do it even when failure to do so can negatively affect their grades (Hayward, 2010).

In a study conducted by Moorehouse (2021), 90 percent of the teachers considered it important for students, as homework is an effective means for enriching teaching and learning. In the same study, 78 percent of teachers considered it as imperative as classwork, while, some teachers disagreed that homework facilitates learning (Moorehouse, 2021).

Homework is assigned to students for academic purposes, such as practicing learned skills, reinforcing learned concepts, and building upon students' knowledge. Bennett and Kalish (2006) believed that schoolwork should not be sent home since it is their family time, and the family must decide what they want to do. However, Loveless (2014) articulates that the amount of homework assigned is manageable, hence load of homework should not concern the parents, whereas, according to Holland et al. (2021) parents have condemned homework.

This research sought to discover the perceptions of teachers towards

the effectiveness of homework for students from grades 1-5, especially among teachers teaching different subjects. It further aimed to detect the differences between teachers' perceptions of homework effectiveness and whether after gaining experience, teachers change their views about homework. Therefore, this quantitative research study was carried out to examine and analyze the answers provided on an anonymous voluntary survey, sent electronically to educators of schools in Karachi, Pakistan.

Research Questions

This study focused on answering three research questions to observe the differences in perceptions about the effectiveness of homework among teachers based on the subjects they teach, the duration of their work experience, and the grades they teach.

RQ 1: What are primary school teachers' perceptions of homework effectiveness?

RQ 2: Is there a significant difference in teachers' perceptions of homework effectiveness based on their years of teaching experience?

H₀₁: There is no significant difference in the mean scores among teachers with 1-20 years of experience regarding their perceptions of homework effectiveness.

RQ 3: Is there a significant difference in the perception of homework effectiveness among teachers teaching English, Science, Social Studies, and Mathematics?

H₀₁: There is no significant difference in the perception of homework effectiveness among teachers teaching English, Science, Social Studies, and Mathematics.

RQ 4: Is there a significant difference in the perception of homework effectiveness among teachers teaching grades 1-5?

H₀₁: There is no significant difference in the perception of homework effectiveness among teachers teaching grades 1-5.

Rationale

This study is significant because, irrespective of what parents and researchers have to say about homework, the practice of assigning homework continues without a comprehensive understanding of its effectiveness. It is therefore essential to understand why homework should or should not be given so that the school and the parents can be on the same page. It has been noted by earlier researchers that the relationship between homework and effectiveness is still unclear (Hayward, 2010). Additionally, there is debate over whether homework should be assigned regularly or only when required (Cooper et al., 2006).

Literature Review

Purpose of Homework

The usual purpose of homework is to enhance students' academic progress while achieving non-academic goals (Maltese et al., 2012; Sayers, 2022). The non-academic purpose includes fostering communication between parents and children, instilling discipline, and keeping parents informed about school activities and curriculum content (Sayers, 2022). On the other hand, Hoeke (2017) argues that the non-academic purpose of fostering a connection between home and school lacks empirical evidence. Another research conducted by Gu & Kristoffersson (2015) examined the importance of homework from teachers' perspective and found that teachers commonly have confidence that homework benefits the students. They added that the benefit is more significant when it is related to the concepts taught to them in the classroom, and also when the homework requires the students to consolidate or practice their classroom learning (Maltese et al., 2012). However, no evidence has been found regarding the claim that homework elevates academic accomplishment and improves students' grades (Keck, 2020).

Time Spent on Homework

The criteria for effective homework lie in the time a student spends completing the assigned task (Snead & Burris, 2016). Whereas, the level of challenge of the task or the critical thought or reflection one has to put into homework is not considered (Horowitz, 2019). Keck (2020) adds that accurately measuring the actual time spent on homework is difficult because students often multitask or get distracted, leading to interruptions in their homework completion. This can result in varying time allocation for different students (Horowitz, 2019). Moreover, there's

an ongoing debate among academics about the appropriate amount of homework for elementary level students (Hoeke, 2017). Keck (2020) suggests that elementary-level homework might not offer significant academic benefits, recommending that only homework with clear academic value should be assigned.

Homework Effects

Different researchers have offered various perspectives regarding the effect of homework on students' academic achievement. Trautwein et al. (2009) analyzed eighth-grade students' association between homework and achievement and concluded that students had both positive and negative views about homework. Galloway et al. (2013) discovered a negative relationship between homework and students' achievement in their research. In contrast, Fernández-Alonso et al. (2015) noted that consistent homework is associated with higher success and endorsed regular assignments across subjects for the best results. Hoeke (2017) reported that parents consider homework effective, emphasizing the importance of purposeful homework for positive learning outcomes.

Stress Attributed to Homework

Pressman et al. (2015) and Horowitz (2019) identified stress among both parents and children due to homework. Parents experienced stress because they struggled to help their children with their homework, while children were stressed due to a lack of interest. Smith (2018) emphasized that stress reduces students' motivation and negatively affects their mental health and overall well-being. Galloway et al. (2013) and Pope (2010) endorsed through their research that the more time students spent on homework, the more it affected their physical and mental health, relationships, and extracurricular activities. Additionally, Lange and Meany (2011) conducted a series of in-depth interviews with two students aged 10 and 11 years, revealing that students experienced increased stress levels when working on their homework under their parents' guidance.

Teachers' Perceptions of Homework

Brock et al. (2007) established that teachers believe homework is given for students to practice skills learned in class, build responsibility, and develop discipline, often in response to parental demands. Further, Loveless (2014) reported that teachers consider reading at home important for developing students' reading

and learning abilities. Keck (2020) found that homework given by science teachers was research-based and problem-oriented, focusing on learning effectiveness instead of memorization and comprehension. Hence, it proved to be a more effective approach.

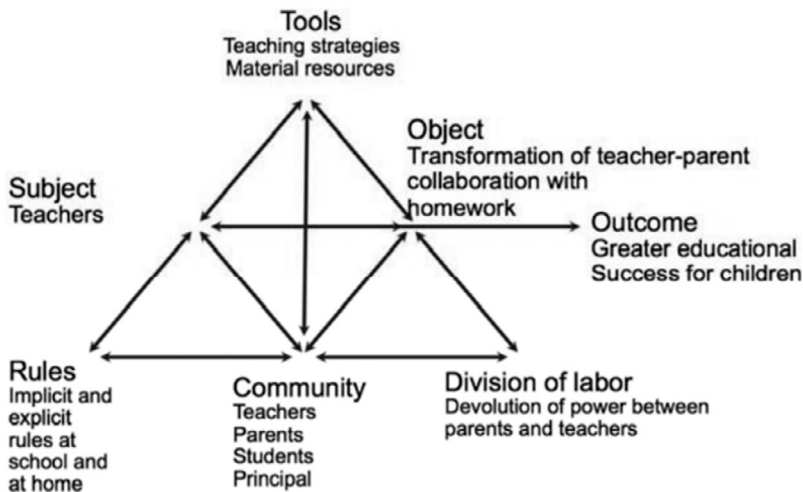
Sallee and Rigler (2008) identified, from a reading perspective, that teachers assign homework to enhance students' reading skills because class time is limited. They believe that developing this skill is crucial for students to become independent learners. However, Keck (2020) highlighted that children from lower socioeconomic backgrounds may not have access to computers, monetary resources, or parental support at home, which could make managing homework difficult for them.

Homework Design

Frey & Fisher (2011) emphasize that the time spent on homework is the primary concern for young children. Loveless (2014) argues that while the time spent on homework by young children has increased, it might not be as much as some critics claim. Cushman (2010) suggests that it's essential to focus on how teachers coordinate and plan homework to prevent students from feeling overwhelmed. Additionally, some critics believe that homework should be meaningful and obligatory for students to benefit from it (Moorehouse, 2021). Effective learning occurs when homework is thoughtfully designed, diverse in nature, and aligned with students' interests. Timely feedback is also crucial for homework to contribute to students' learning (Fyfe, 2016; Vatterott, 2011).

Theoretical framework

Contemporary educators studied the mechanism of homework through the lens of Activity Theory to develop a working model for improving teacher-parent collaboration in homework. Figure 1 illustrates an adapted version (Deslandes & Barma, 2018) of the Activity Theory Model. This model includes parents, teachers, tools used for guidance, explicit and implicit rules, and the division of power between parents and teachers. It effectively demonstrates the interrelationship of these elements and highlights that homework's effectiveness depends on these connections (Engeström, 2010).

Figure 1*Activity Theory Model as Adapted from Engeström, 2010*

The influence of homework on students' learning has been argued by many research scholars for quite a long time (Cooper, 1989b; Keck, 2020; Pope, 2010). One set of critics unwaveringly believe that homework has no significant role to play in educational processes (Bennett & Kalish, 2006; Kralovec & Buell, 2001). On the other hand, another group of critics states, that a well-thought-out design of homework affects the success of students (Hoeck, 2017; Keck, 2020; Maltese et al., 2012). Despite mixed findings, homework in United States schools has for a long time been recognized as an important part of education (Cooper et al., 2006).

Research conducted in Pakistan shows that higher grade students' obligation to learn via homework had a noteworthy influence on their grades (Mehmood et al., 2012). Students who were doing their homework improved qualities of self-responsibility and self-efficacy. Furthermore, homework is a means of ensuring that strugglers do not fall behind their peers. However, research showed that it did not have much effect on improving students' grades (Sayers et al., 2022).

The conclusion that can be drawn from the above discussion is that though homework has its advantages and disadvantages, proper planning and well-thought design can be an effective strategy for learning (Holland et al., 2021; Moorehouse, 2021). Hayward (2010) suggests, that homework should be stimulating, pleasing, and most importantly substantial to keep students motivated and interested. Therefore,

involving students in its planning is crucial as students will be responsible not only for its timely completion but also for an improvement in grades is possible (Holland et al., 2021).

Methodology

Research Design

Data for a quantitative research study were collected via a cross-sectional study to examine teachers' perception of homework effectiveness in primary grades of four schools in Karachi Pakistan. Details of the sampling technique, instrument used, data analysis procedure, and ethical considerations are discussed below.

Sampling

The participants comprised 88 teachers from four different schools, teaching different subjects in different primary (1-5) classes. The research adopted a purposive sampling technique to ensure that the required characteristics are met, as shown in Table 1 below. The participating teachers were categorized according to their experience, subjects, the grade level they taught, and their current position. The number of teachers from each category is shown in Table 1.

Table 1

Number of Participants

Variables	N	(%)
Gender		
Male	6	(6.8)
Female	82	(93.2)
Experience		
1-5	52	(59.1)
6-10	22	(25)
11-15	6	(6.8)
16-20	8	(9.1)
Subject		
English	26	(29.5)
Social Studies	21	(23.9)
Maths	23	(26.1)
Science	18	(20.5)
Grade		
1	18	(20.5)
2	17	(19.3)
3	18	(20.5)
4	17	(19.3)
5	18	(20.5)
Current Position		
Class Teacher	48	(54.5)
Subject Teacher	40	(45.5)

The schools were selected based on their teacher population and because they were approachable and accommodating. The selection of the subjects was based on the promotion criteria of the schools, and all four schools considered these as their core subjects for promotion. It was necessary to compare the most experienced teachers' experience with novice teachers' so that differences in their perception of homework could be calculated. Similarly, a comparison between different subjects and the grades was also calculated to see if any difference in this regard was prominent. The majority of the participants in this study were females, and n=6 participants were males, this criterion was not included in the research.

Instrument

Hoeke's (2017) 5-point Likert scale, not only reduced biases and ambiguity but was also adapted to assess teachers' perception of homework. The independent variables in this research were the grades they taught, subjects that they taught, and experience in teaching, while the dependent variable was the teacher's perception. The survey was prepared on Google form, and was circulated to the teachers to reveal insights regarding homework. In the first week, the researchers did not receive any response, so a reminder was sent to the participants. By the end of the deadline, only n=37 responses were collected therefore the researcher went into the field to collect paper-based survey data. The collected data was transferred to an Excel sheet manually and then uploaded to SPSS for analysis. The survey form contained 12 positive and one negative statement (item number 11), so the analyses were conducted after reversing the labels for item 11.

Data Analyses Procedure

The Survey was conducted and data received were analyzed using SPSS (Statistical Package for Social Sciences) Version 21.0 which determined perceptions of homework effectiveness among teachers of different schools in Karachi. The researchers compared the perceptions of parents with teachers of different grade levels, different subjects, and years of experience. Statistical analysis of data was conducted using One-way ANOVA because there was more than one group participating in this research. The analyses revealed a significant difference in the perception of the teachers, therefore post hoc test was also administered.

Ethical Considerations

Prior to the study, the researchers made sure to follow the research protocol. For this purpose, the school administration was requested to sign a letter, permitting the researchers to conduct the study. Furthermore, teachers signed a consent letter of participation; they were also informed that the identity of all respondents would be protected.

Findings

This quantitative research compared homework perceptions of teachers' according to their work experience, subjects and grades taught. The mean score derived for the different independent variables showed that generally, teachers

agree on giving homework. However, there was no significant difference between the independent variables. This section presents the demographic characteristics of the sample, followed by the results of the main analyses carried out to answer the research questions. One negative item was recorded to see if any significant difference occurred. In this study, the researchers failed to reject the null hypothesis for the grades-independent variable. However, in the case of the subject and experience -independent variables, the null hypothesis was rejected.

Teacher's Perception of Homework Effectiveness

The overall mean of 3.78 shows that the majority of the statements were inclined towards neutral or agree, responses.

Table 2

Descriptive Statistics

	N	Mean	Std. Deviation
Total_Perception	88	3.7832	.44190
Valid N (listwise)	88		

Following are the 13 items for the survey of homework perception and their mean are below:

Homework to enhance learning (M=4.05), an effective way to increase student achievement (M=3.80), the primary purpose of Homework is to maximize the time spent on learning outside school (M=3.88), an effective way to promote positive attitudes about learning (M=3.97), to promote good work habits (M=4.01), complete homework with parental assistance (M=3.62), complete homework independently (M=3.70), Parents want homework (M=4.29), The school to assign homework (M=4.18), a teacher does not cover required standards in class (M=3.29), Homework causes tension in homes (3.30), teacher's training (M=3.67), Typical homework assignments include (worksheets, rote practice, project, reading) (M=3.36). The results are being discussed according to the research questions stated in this research.

Homework Perception and Teacher's Experience

The mean score showed no significant difference among levels of teacher

experience ranging from 1-20 years. To compare homework perception concerning participants' teaching experience, a one-way between-subjects ANOVA was conducted concerning homework perception in teachers' experience. There was a significant difference in the (DV) Homework Perception on the (IV) Teaching Experience of teachers for the four groups. There was a significant effect of (IV) teaching experience on (DV) homework perception at the $p < .05$ level for the four conditions [$F(3, 84) = 3.86, p = 0.012$].

Table 3*Total Perception Experience*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.061	3	.687	3.865	.012
Within Groups	14.928	84	.178		
Total	16.989	87			

Table 4

HW Perception

Experience	Mean	N	Std. Deviation
1-5	3.7	52	.36
6-10	3.8	22	.53
11-15	3.6	6	.44
16-20	3.5	8	.61
Total	3.7	88	.43

The mean found in the above table shows that experience does not change the mindset of teachers, about homework. All participants considered homework important, but they differed in the level of agreement Teachers with 6 -10 years of experience ($M=3.8, SD=.53$) were more towards strongly agree. The most experienced group of teachers ranging from 16-20 years were only 8 in number ($M=3.5, SD=.61$) so they are more positioned in the neutral area.

Difference in Teachers' Perception of Homework Effectiveness between Subjects

There is no significant difference in the perception of homework effectiveness between teachers teaching English, Science, Social Studies, and Maths. To compare homework perception concerning the grades that the participants are teaching, a

one-way between-subjects ANOVA was conducted. There was a significant effect of the (IV) Subjects on the (DV) Homework Perception in 4 conditions. There was no significant difference of different subjects on homework perception (DV) at the $p < .05$ for 4 conditions [$F(3,84) = 5.97, p = 0.001$] In the following figure since the significance was $p < 0.05$ post hoc using Tukey HSD test indicated that the mean score for English ($M=3.5, SD=.37$) was significantly different from science ($M=3.6, SD=.52$), then Social Studies ($M=3.8, SD=.42$) then maths ($M=3.9, SD=.35$). However, the mean score of maths shows that more agreed on giving homework in this subject compared to other subjects. Most of the responses received for subjects were more inclined on agreement. However, no significant difference was found in the subject and homework perception.

ANOVA

Table 5

Total Perception

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.987	3	.996	5.974	.001
Within Groups	14.001	84	.167		
Total	16.989	87			

Multiple Comparisons

Table 6

Dependent Variable- Tukey HSD

(I) Subjects	(J) Subjects	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
English	Science	-.07528	.12518	.931	-.4034	.2529
	Social Studies	-.27064	.11978	.116	-.5846	.0433
	Maths	-.46064*	.11687	.001	-.7670	-.1543
Science	English	.07528	.12518	.931	-.2529	.4034
	Social Studies	-.19536	.13114	.448	-.5391	.1484
	Maths	-.38536*	.12848	.018	-.7221	-.0486
Social Studies	English	.27064	.11978	.116	-.0433	.5846
	Science	.19536	.13114	.448	-.1484	.5391
	Maths	-.19000	.12323	.417	-.5130	.1330
Maths	English	.46064*	.11687	.001	.1543	.7670
	Science	.38536*	.12848	.018	.0486	.7221
	Social Studies	.19000	.12323	.417	-.1330	.5130

*. The mean difference is significant at the 0.05 level.

Report

Table 7

Total Perception

Subjects	Mean	N	Std. Deviation
English	3.5828	26	.44598
Science	3.6581	18	.47214
Social Studies	3.8535	21	.37043
Maths	4.0435	23	.33676
Total	3.7832	88	.44190

Difference in Teachers' Perception of Homework Effectiveness of Different Grade Levels

There is no significant difference among teachers teaching grades 1- 5 on the perception of homework effectiveness. To compare homework perception concerning participants' teaching in different grades, a one-way ANOVA, between different subjects was conducted. There was no significant effect of the (DV) homework perception on the (IV) teaching in different grades of teachers for the five groups. There was not a significant effect of (IV) grades on (DV) homework perception at the $p < .05$ level for the five conditions [$F(4, 83) = 1.66, p = 0.165$].

ANOVA

Table 8

Total Perception Grade

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.263	4	.316	1.667	.165
Within Groups	15.725	83	.189		
Total	16.989	87			

Table 9

Descriptive Statistics

	N	Mean	Std. Deviation
Grade	88	3.0000	1.43038
Valid N (listwise)	88		

The interesting element here is that in grades the participants take a neutral stance as teaching different grades does not have any effect on having a homework perception.

Discussion

In this section, teachers' perceptions of homework within different subjects, different experiences, and different grades will be discussed. This discussion will be in the light of the literature review which will give a clear idea of teachers' insights and observations regarding homework.

Teachers Perception of Homework

There was no noteworthy variance identified in the teachers' perception of homework irrespective of the grades they taught. The overall mean is found to be on the positive side for homework. As for the item "parents want students to have Homework" scored ($M=4.29$) which is clearly inclined towards strongly agree. Though the literature says that homework takes away family time, nevertheless, in this study parents insist on schools assigning homework to their child (Brock et al., 2007; Fernández-Alonso et al., 2015). Another item "management of the school expects teachers to give homework" scored ($M=4.18$). This could be possible because either it is the parents' demand or it makes it easy for the school to complete the curriculum on time (Dettmers et al., (2019).

Homework Perception Among Teachers' Work Experiences

The mean score of teachers having experience of 6-10 years regarding homework is the highest ($M=3.8$) compared with teachers of higher or lower experience. This is possible as this group of experienced teachers come with different teaching styles, hence their understanding of education could be different from that of others (Zhou, 2020). Though teachers with 1-6 years' experience were quite a few in number, the mean score is ($M=3.7$) indicating that it is low. These teachers had low mean scores probably because they were still understanding teaching, and opined that effectiveness of homework requires time. Eight respondents who had more than 10 years teaching experience accepted that homework was necessary but had the lowest mean score which is $M=3.5$. Most experienced teachers consider that there is nothing new about homework as the practices have not changed much (Rudman, 2014). Furthermore, teachers either have no opinion or are not concerned about the outcome of homework, since they have been practicing it for a long time (Weerasinghe, 2017).

Teachers' Homework Perception Among Different Subjects

There is a significant difference observed in the subject variable as the mean score for maths subject is more compared to other subjects. The mean score indicates that all participants' responses favor giving homework for maths. Dettmers (2019) states that teachers are unable to do maths practice during class time, therefore consider giving homework to students. Zhou (2020) is also of the same standpoint, considering homework as the best way to develop mathematical skills in children.

The mean score for the two items "Complete homework with parental assistance (M=3.62) and the other "Complete homework independently" (M= 3.70) showed mixed findings which does not identify what is expected of students as far as task completion is concerned. That is, some teachers believe that homework should be done independently, while others think that homework should be done under the supervision of parents. Literature also supports the idea that parental monitoring of the child's homework is a positive encouragement that eventually creates interest and makes the child an independent learner (Deslandes & Barma, 2018; Weerasinghe, 2017).

Teachers' Homework Perception Regarding Different Grades

Primary teachers, teaching different subjects in grades 1-5 were also part of this survey and their perception of homework was compared, leading to some interesting findings. The items "it is important to assign homework to students to enhance learning" (M=4.05), and "homework is an effective way to promote good work habits" (M=4.01) had a high mean score. Fernández-Alonso et al. (2015) consider homework an important element in a child's development whether it be for enhancing learning or developing good work habits. Sayers et al., (2022) identify that students improve the qualities of self-responsibility and self-efficacy; however, their research showed that homework did not have much effect on students' grades. Hence, in this study homework is approved by teachers teaching different grades and different subjects.

Limitations

Even though this is a quantitative study, the results of this research cannot be generalized as the sample size was too small. Also, the time at hand for the research was short as the process for data collection and analyses of the independent variables

in this research took time. Furthermore, we are only aware of the responses that the teachers provided via the survey, we are unaware of the reasons why they have this perception. Interviewing teachers after the survey form had been filled out would have helped to triangulate the results.

Conclusion and Recommendation

In conclusion, the outcomes of this study showed that students can benefit from homework practices to attain desirable results. Mentally, it helps students to develop themselves to be independent and more disciplined learners (Sayers et al., 2022). Moreover, homework does not only affect students' academic success, it results in the enhancement of many life skills (Fernández-Alonso et al., 2015), from institutional to personal learning, which assists them in being valuable assets for society (Dettmers, 2019; Keck, 2020). Besides, homework is also very fruitful in enhancing parent and child relationships, helping promote the emotional well-being of children (Hoeke, 2017). However, measuring emotional well-being and social adjustment is a difficult task. Therefore, it is suggested that in future studies, these features of human behavior should be observed and monitored through specific homework task completion and students' task assignment monitoring. This study can benefit educators by analyzing the impact of homework practices on students' academic performance. Homework can significantly increase students' performance when it is planned effectively. It can also lead students to be more responsible for their learning (Rudman, 2014).

1. Schools should take initiatives to make homework effective rather than a burden, so that children can improve their academic achievement.
2. Schools should promote parent-school relationships so that school administration can be guided as far as homework for children is considered.
3. A mixed method research should be conducted to identify the perception of students, teachers, and parents' regarding homework.
4. A study should be conducted in schools where homework is not a practice and then results should be compared with schools where home work is given to find out which category of students have improved academic achievement.
5. To determine the strength and generalizability of the findings, it is suitable to replicate the study with larger samples throughout Pakistan.

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