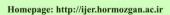




Iranian Journal of Educational Research

Print ISSN: 1735 - 563X Online ISSN: 2980 - 874X





Effectiveness of Educational Method without After-school Homework on Learning, Academic Enthusiasm and Parental Satisfaction of Fourth Grade Elementary Students

Batool Sabzeh¹ ⊠ , Farzaneh Sahraei²

1. Associate Professor, Department of Educational Sciences, Farhangian University, P.O. Box 14665-889, Tehran, Iran (Corresponding author), b.sabzeh@cfu.ac.ir

2. M. A. in Educational Sciences, Department of Educational Sciences, Farhangian University, P.O. Box 14665-889, Tehran, Iran

Article Info	ABSTRACT					
Article type:	Objective: The present study aimed to evaluate the effectiveness of a pedagogical approach					
Research Article	eliminating traditional homework on learning outcomes, academic enthusiasm, and parental					
Article history:	satisfaction among fourth-grade elementary students.					
Received 30 Jan. 2025	Methods : A quasi-experimental design with pre-test and post-test was employed. The study					
Received in revised form 22	was conducted at Shahid Dehloran Girls' School during the 1401–1402 academic year with 60 fourth-grade students. Participants were assigned, based on pre-existing class structures,					
Apr. 2025	to an experimental group (n=30) and a control group (n=30). The experimental group					
Accepted 02 Jun. 2025	engaged in in-class, skill-based activities in place of traditional homework for one semester,					
Published online 01 Sep. 2025	while the control group continued the conventional homework routine. Data were collected					
	through a researcher-developed academic performance test, the Academic Enthusiasm					
Keywords:	Questionnaire (Fredricks et al., 2004), and a researcher-designed parental satisfaction					
Homework,	questionnaire. Data analysis included descriptive statistics, independent samples t-tests, and					
Pedagogical approach,	Analysis of Covariance (ANCOVA).					
Learning outcomes,	Results: The results indicated that the pedagogical approach without traditional homework					
Academic enthusiasm,	significantly improved student learning, academic enthusiasm, and parental satisfaction					
Parental satisfaction,	compared to the conventional method. These effects were statistically significant at the 99%					
Elementary education	confidence level ($p < .01$).					
	Conclusions: The findings suggest that replacing traditional homework with structured in-					
	class activities can enhance academic performance, foster enthusiasm for learning, and					
	increase parental satisfaction. This approach may serve as an effective alternative to					
	conventional homework practices in elementary education.					
Cite this article: Sabzeh, B. &	Sahraei, F. (2025). Effectiveness of educational method without after-school homework on					
	learning, academic enthusiasm and parental satisfaction of fourth grade elementary students. Iranian Journal of					
Educational Research, 4 (3), 1-28.						

. DOI: https://doi.org/10.22034/4.3.1



© The Author(s).

DOI: https://doi.org/10.22034/4.3.1

Publisher: University of Hormozgan.

Introduction

Students are widely recognized as paramount human capital within any society, possessing the potential to propel societal advancement and development through the synergistic application of youthful dynamism, knowledge, and cultivated competencies. Across nations, a considerable proportion of national income is allocated annually to education. Educational systems are perpetually under pressure to enhance their efficacy, wherein the academic attainment of learners serves as a primary determinant of institutional success (Asarta & Schmidt, 2017). Consequently, numerous educators incorporate homework as an ancillary pedagogical tool aimed at augmenting students' academic achievement. Homework has traditionally constituted an integral component of student curricula and perennially represents a focal point of concern for educators, learners, and parents alike (Cylao, 2023). While certain academic tasks are undertaken within the classroom setting, others are designated for completion outside of school hours, conventionally termed 'homework' or 'evening assignments.' Typically, homework is assigned by educators with regular frequency, often daily, facilitating student engagement with course material through diverse activities including, but not limited to, completion exercises, written compositions, memorization tasks, problem-solving, and practical experimentation (Valentini & Cooper, 2001).

Notwithstanding its protracted recognition as an indispensable constituent of learning and an integral facet of the educational enterprise (Madani, Amini, & Kashanian, 2022)—defined as encompassing all academic pursuits undertaken beyond the confines of the classroom and formal schooling (Mousavi Nara, 2019)—a significant cohort of students reportedly harbours ambiguity regarding the rationale for, and the perceived utility of, completing assigned homework (Akiyoka & Gilmore, 2013; Bambinoti, 2013). Such assignments are frequently perceived by students as incongruent with their personal interests, engendering reluctance towards their completion (Katz, Kaplan & Guta, 2009). [S1] Furthermore, empirical evidence indicates that take-home assignments may constitute a significant antecedent of stress and anxiety among students across the academic continuum (Dolin et al., 2021; Dumont et al., 2014; Katz et al., 2012; Persman et al., 2015) and have been correlated with deleterious effects on students' physiological well-being and sleep quality (Sava & Negro, 2023). For elementary school populations, homework and evening assignments can curtail engagement in physical activities, outdoor recreation, and discretionary leisure pursuits (Klang, 2021; Michoud et al., 2015). Additionally, during this formative stage,

crucial developmental domains, particularly socio-emotional maturation, may be constrained by diminished opportunities for peer interaction and play (Wataratti, 2009). [S1] Concurrently, contemporary educational paradigms increasingly underscore the importance of not only academic achievement and progression but also the emotional and psychological welfare of students (Cyla, 2023; Mohe, Katz, Cohen & Alci, 2020; Rodríguez et al., 2022). Nevertheless, scholars reviewing the pertinent literature concede that the preponderance of research has predominantly investigated the instrumental role of homework in enhancing academic performance, affording comparatively less scholarly scrutiny to its ramifications for students' emotional and psychological states and familial well-being (Nouri-Hiyati & Rahya, 2023; Negro & Sava, 2022; Cyla, 2023; Modoul & Vary, 2018; Rodríguez et al., 2019). Indeed, homework has the potential to precipitate familial discord (Vale et al., 2019), particularly when characterized by excessive repetition, a lack of intellectual stimulation, or its imposition as a punitive measure.

Given that students dedicate a substantial quantum of their out-of-school hours to assignment completion, parents consequently emerge as pivotal stakeholders, assuming a significant participatory role in their children's learning trajectories (Brugger et al., 2019; Pomerantz et al., 2012). The methodologies through which parents engage with their children to facilitate effective assignment completion exhibit considerable variation in terms of qualitative efficacy. Empirical investigations reveal a heterogeneous spectrum of outcomes associated with parental involvement: instances of positive correlation with student achievement (Kleimans et al., 2012; Nicholas & Steider, 2014), occurrences of neutral impact (Deflorio & Bliakoff, 2015; Missil & Others, 2015), and circumstances yielding deleterious consequences. Parental perceptions of homework are diverse: some construe it primarily as an instrument for content memorization, whereas others perceive it as a mechanism for occupying children domestically, under the assumption of autonomous student completion. Nevertheless, such idealized expectations of augmented learning or benign entertainment via assignments frequently founder against the pressures engendered by substantial workloads. This burden, impacting both students and parents, often culminates in considerable dissatisfaction, frustration, and interpersonal tension. Congruent with the observations of Grelink & Apastaleris (2002), an increased volume of assignments correlates with heightened parental pressure, which subsequently manifests as augmented parental control over children's academic activities. This phenomenon is corroborated by multiple researchers, who report that a significant number of students experience pronounced negative affective states during homework completion (Leon & Richard, 1989). Such emotional distress is often exacerbated by parental involvement in varied assignment types (Als-Kwest et al., 2008) and frequently intensifies into student resistance and disaffection concerning assignment completion (Pomerantz & Eaton, 2001; Silinski & Others, 2015). Furthermore, findings pertaining to parental involvement and satisfaction suggest that its efficacy and benefit are contingent upon adequate facilitation of inschool learning, positive academic performance, and student contentment with homework (Wu, Brugger, Oh & Pomerantz, 2022). Conversely, in the absence of these conditions, parental involvement may precipitate adverse outcomes; rather than fostering children's autonomy, initiative, and volitional choice, parents may adopt a more directive, controlling stance, thereby inducing anxiety and excessive emotional entanglement (Di Stefano et al., 2020; Zahiri, 2017). Instances occur wherein parental assistance in assignment completion extends to the actual execution of tasks on behalf of their children (Sava & Negro, 2023). This practice can substantially encroach upon familial time, deplete parental energy reserves (Holland et al., 2021; Renning, 2011; Hampden et al., 2013), and, in some cases, precipitate intra-familial conflict (Vale et al., 2019). Consequently, a considerable contingent of parents advocates for the abolition of homework and evening assignments (Cyla, 2023).

Beyond the substitution of conventional assignments with technology-mediated and digital activities, school-centric tasks predicated on the design of individual and collaborative projects may significantly aid students in the acquisition of diverse subject matter and foster intrinsic motivation for meaningful engagement. The replacement of homework with competency-oriented individual and group assignments holds the potential to markedly mitigate its adverse consequences, particularly when such tasks are executed within the school environment under pedagogical guidance and with active student participation. Conventionally, assignments are dichotomized into static (or fixed) and dynamic (or active) categories. Static assignments, entrenched in traditional homework paradigms, depend exclusively on the iteration and practice of textbook material, often neglecting individual learner variability. Such an approach tends to foster rote memorization and superficial learning, conforming to predetermined schemata. Conversely, dynamic assignments accentuate active student learning via the meticulous design of tasks and skill-based learning activities, thereby promoting engagement, critical reasoning, and

demonstrable performance (Skill-based Assignment Implementation Plan, 2022). This pedagogical orientation integrates students' extant knowledge, attitudinal dispositions, and practical skills within authentic, real-world contexts pertinent to exigent life issues.

A considerable body of research has scrutinized the impact of in-class learning activities and competency-based assignments as viable alternatives to traditional homework. For example, Wexler (2019) documented a case wherein a second-grade educator successfully eliminated homework, suggesting that its utility in enhancing academic outcomes for elementary students is not unequivocal. O'Neill's (2020) findings indicated that collaborative group activities augmented student engagement and cultivated greater enthusiasm for learning. The synergistic application of two critical components—collective goals and individual accountability—has been shown to yield highly positive academic results, concurrently fostering collaboration and improved interpersonal dynamics among students. Moradi (2021) underscored the efficacy of problem-based and inquiryoriented pedagogical methodologies in enhancing student enthusiasm and academic attainment. Similarly, Miller et al. (2021) highlighted the advantages of project-based learning as a substitute for conventional homework. Cooper (2020) demonstrated that students in instructional settings devoid of homework achieved superior scores on mathematics and science assessments, alongside reporting reduced levels of fatigue. Paytel (2007) observed that homework is not the sole postschool activity capable of fostering learning; numerous leisure pursuits can also inculcate crucial academic concepts and essential life skills. The critical factor lies in establishing an optimal equilibrium between leisure activities and structured learning. Furthermore, Emerson and Menchen (2010) advocated for directing educators and parents towards skill-centric and collaborative assignments as opposed to traditional homework, proposing this paradigmatic shift as a strategy for elevating the quality of learning.

Shah Mohammadi (1401) further demonstrated a statistically significant positive correlation between perceived classroom structure components—namely, interest generation, appropriate challenge, learner choice, and enjoyment—and students' adoption of mastery and performance goal orientations. The research of Mohibi and Aminah (1399), as well as Madani, Amini, and Kashanian (1401), has explored the narratives and perspectives of elementary school educators concerning initiatives to abolish homework and substitute it with competency-based assignments. These studies concluded that, from the educators' viewpoint, such a substitution would likely yield

positive impacts on student learning, contingent upon the fulfillment of specific implementation prerequisites. Agha Mohammadhosseini et al. (1399) determined through their research that homework constitutes a significant stressor for both students and their parents. A comparative study by Mahani and Bahrami (1401) revealed that a cohort of students exempt from homework exhibited superior academic motivation and satisfaction levels compared to their counterparts. Takht-Ravan et al. (1400), upon examining the merits and demerits of learning environments without homework, concluded that the correlation between homework and academic achievement remains equivocal, and that homework's encroachment on time for play and leisure contributes to dissatisfaction among students and parents.

Furthermore, a body of evidence and scholarly research (Miller et al., 2018; Zangouri and Pino, 2020; Li et al., 2014) indicates an evolving expectation for educators to transcend traditional pedagogical roles, instead cultivating student agency by positioning them as active participants within the instructional process. This paradigm shift entails a departure from emphasizing rote memorization and adherence to prescribed procedures, towards the design of projects and learning scenarios authentically derived from real-world contexts and students' lived experiences (Miller, Sorens, and Karajkik, 2021). Implementing such an approach necessitates fundamental transformations within classroom learning ecosystems and broader educational frameworks. Educators are thus encouraged to prioritize the design of meaningful and dynamic educational activities that foster collaborative work and robust interaction among students, as opposed to relying predominantly on didactic lecturing supplemented by homework intended for mere practice and repetition of curricular content (Allen and Hedrya, 2020; Miller and Brown, 2019). Given the challenges associated with homework—including student reluctance, limited academic benefits, and parental dissatisfaction—this study explores the effectiveness of replacing homework with skill-based classroom activities to improve student learning and motivation. This study investigates whether replacing traditional homework with skill-based classroom activities enhances students' academic motivation, parental satisfaction, and overall learning outcomes in elementary education.

Material and Methods

This study employed an applied research paradigm, utilizing a quasi-experimental, pre-test/post-test control group design to investigate the research subject. The primary statistical population comprised all 60 fourth-grade female students enrolled at the 'Shahid Dehloran' school during the 1401-1402 academic year. Additionally, the parents of these students were identified as a secondary component of the statistical population, pertinent to specific research objectives (e.g., assessing parental satisfaction).

Sample determination was predicated on the implementation of the homework-free educational intervention over one academic semester, commencing at the beginning of the academic year. Given the logistical impracticality of reallocating students post-enrollment, sampling leveraged the pre-existing, school-administered division of fourth-grade students into two intact classes, each comprising 30 individuals. These intact classes were subsequently designated as the experimental group and the control group, respectively.

To achieve the research objectives, students in the control group adhered to the conventional pedagogical model: they attended class as usual and, throughout the semester, received daily homework assignments for home completion following in-class teacher instruction. Conversely, the experimental group underwent a semester-long intervention characterized by the elimination of traditional homework, which was substituted with structured individual and collaborative classroom-based activities. Consequently, no after-school homework was assigned to this cohort. The pedagogical approach for the experimental group was meticulously designed, grounded in established learning theories, and involved the application of diverse active teaching methodologies tailored to specific subject matter. Educators facilitated a range of individual and group learning activities—implemented pre-, during-, and post-instruction—to foster comprehensive student engagement and deep conceptual understanding. This methodology afforded students opportunities for peer-to-peer knowledge sharing, collaborative review of challenging concepts, project-based learning, and participation in group activities within the classroom. Furthermore, students were encouraged to engage in self- and peer-assessment, thereby cultivating a sense of agency and mutual responsibility in the learning process. The role of the teacher extended beyond direct instruction to encompass facilitation, informational resourcing,

corrective feedback, supplementary support, and overall guidance within the learning trajectory of the students.

Classroom activities and assignments were strategically designed to align with textbook curricula while also catering to students' interests and developmental capabilities; provisions for temporal flexibility in task completion were incorporated. Necessary resources for certain activities were procured through collaborative student participation. Each 45-minute instructional session was typically structured to allocate approximately 15 minutes to teacher-led instruction and explanation of new material, with the subsequent 30 minutes dedicated to student engagement in a variety of dynamic activities. These included educational games, group projects, manipulative-based tasks, artistic endeavors, recitations (e.g., Quran, poetry), dramatic performances, Socratic dialogues, focused discussions, practice exercises, and student-led presentations. Illustrative examples of these alternative in-class activities, differentiated by subject, are detailed in the subsequent table:

Table 1. Sample Activities to Replace Homework

Lesson Title	Sample activities to replace homework	Documentation
Quran	Practice and repeat Quranic verses after listening to Quran reciters Group reading of verses Paired games for repeating and correcting pronunciation of verses Group performances of Quranic messages Screening relevant Quranic films	
Persian	Group discussions about the themes of Persian lessons to enhance thinking skills Use of storytelling and creative performance to clarify and reinforce learning Educational games for learning new vocabulary meanings Preparing and creating cards for related words, synonyms, and antonyms Designing stimulating individual activities to strengthen creative writing and paragraph writing skills Creative spelling activities through individual and group games Poem recitation from the book as pairs and groups	

Social Studies	Group discussions and implementing a courtroom teaching method based on the lesson topics Engage in question-and-answer games while considering speed and scoring Present personal interpretations of the lesson in drawing or writing activities Study the lesson topic and ask each other questions Interview parents and others outside the classroom and present findings Identify a problem, find an answer by following research steps, and present the results	
Mathematics	Various math games Hands-on math activities Creating tools for understanding math concepts Problem-solving worksheets completed individually and evaluated by peers	
Science	Design of group and project-based activities Exploration-based games Conducting scientific demonstrations Performing various experiments in the classroom, school environment, or laboratory Creating tools to understand science concepts Nature visits	
Art	Various painting techniques done individually or in groups Collage with different materials and an exhibition of the created works Artistic activities integrated with other subjects Crafting based on topics from other subjects Creating props for group performances	

The tools used in this research based on the studied variables included three items as detailed below:

1 Academic Motivation Questionnaire: To collect data on students' academic motivation, the questionnaire developed by Fredricks et al. (2004) was utilized. Given that academic motivation is a multidimensional construct comprising various behavioral, cognitive, and motivational

components (Martin, 2008, p. 269), this questionnaire was selected to assess all three desired components. This questionnaire also includes students' attitudes towards school and their ability to meet performance expectations. It consists of 15 items, each containing three subscales: behavioral, emotional, and cognitive. Items 1-4 relate to the behavioral motivation subscale, items 5-10 relate to emotional motivation, and items 11-15 pertain to the cognitive motivation subscale, following a Likert scale from 1 (very low) to 5 (very high). The reliability coefficient for this scale was reported as 0.86 by its developers, and in a research study by Abasi et al. (2015), it was found to be 0.66 using Cronbach's alpha.

2.Learning Test: To measure the learning level of students and their academic performance, a test designed by the researcher (teacher) was used. This test was developed with the collaboration of several fourth-grade teachers, the fourth-grade educational supervisor, and input from professors regarding the course topics of the fourth-grade curriculum, consisting of 30 questions. In addition to its validity being confirmed by professors and cooperating fourth-grade teachers, its reliability was calculated using Cronbach's alpha, resulting in a reliability coefficient of 0.856.

3.Parental Satisfaction Questionnaire: To assess parents' opinions about the no-homework education plan and their level of satisfaction, a researcher-developed questionnaire was utilized. The reason for using a questionnaire instead of interviews was to prevent researcher bias. The questionnaire questions were pilot-tested on a number of parents after the initial design, leading to the correction and adjustment of some questions. The final questionnaire addressed several main axes, including opinions about teacher performance, student performance in various subjects, opportunities and alternative activities to replace homework, different skills of students, overall satisfaction with the school, etc., posed in the form of 30 questions and evaluated on a five-point Likert scale ranging from very good to very poor. The content validity of the questionnaire was confirmed by professors, the school principal, and the educational supervisor, with a reliability coefficient of 0.914 obtained via Cronbach's alpha. Since the reliability coefficient for this questionnaire was estimated to be over 0.70, it has an appropriate reliability for field execution and implementation.

To analyze the obtained data, descriptive statistics, frequency tables, means, and standard deviations were used. For inferential statistics, independent t-tests and one-way analysis of covariance (ANCOVA) were conducted using SPSS software version 22.

Ethical consideration; Throughout the study, participants' information was kept confidential, informed consent was obtained, and it was ensured that participation was voluntary and would not cause harm.

Results

Descriptive Findings: The information about the participating students and parents in the research is presented in the following tables:

Table 2. Frequency of Students Participating in the Research

sample	Frequency	Grade	Gender					
Experimental Group	30	Fourth Grade	Female					
Control group	30	Fourth Grade	Female					
Total	60	Fourth Grade	female					

The study sample comprised a total of 60 fourth-grade female students, who were equally allocated to an experimental group (n=30) and a control group (n=30).

Table 3. Information about Parents Participating in the Research

Parent Information	Frequency	Percentage	Cumulative Frequency
Parent gender			
female	14	46.66%	100%
male	16	53.34%	
Educational level			
High school	6	10%	10%
Associate Degree	4	6.67%	16.67%
Bachelor's Degree	11	36.67%	53.34%
Master's Degree and Higher	9	30%	100%
Number of Children			
Only child	5	16.67%	16.67%
Tow children	21	70%	86.67%
Three children	3	16.67%	100%
More than three children	1	3.33%	

As detailed in Table 3, the demographic profile of the 30 participating parents indicates a composition of 14 mothers and 16 fathers. Educational attainment within this cohort varied: 6 parents held a high school diploma, 4 possessed an associate degree, 11 had attained a bachelor's degree (representing the largest proportion at 36.7%; n=11), and 9 held a master's degree or a more advanced qualification.

With respect to family structure, the predominant family size reported was two children; only one family indicated having more than three children. Furthermore, the age of all participating parents fell within the 30 to 45-year range.

Inferential Findings:

To examine the research hypotheses, inferential statistical procedures were utilized. As a preliminary step, the Kolmogorov-Smirnov test was employed to assess the normality of the research data's distribution, a critical factor in determining the appropriateness of subsequent parametric versus non-parametric analytical techniques.

Table 4. Kolmogorov-Smirnov Test Values for Research Variables

Variable	Z value	Significance level
Learning	1.278	0.085
Academic Motivation	2.365	0.095
Parental Satisfaction	1.45	1.021

As shown in Table 4, the significance level values (greater than 0.05) indicate that the Kolmogorov-Smirnov test was not significant, suggesting that the distribution of the data is normal and allowing for the use of parametric tests to test the research hypotheses.

Hypothesis One: No-Homework Education Affects Learning in Fourth Grade Students.

To test the first hypothesis, the average learning values between the experimental and control groups were compared, measuring the impact of the no-homework protocol.

Table 5. Independent T-Test Values for Comparing Learning Variables Between Experimental and Control Groups

Subje	pjects Theoretical Mean Experimental mean		Standard Deviation	T value	P	
Mathematics						
Pre-Test	experiment	30	23.80	2.64		
	Control	30	25.36	4.72	0.668	0.418
Post-Test	experiment	30	35.44	3.53		
	Control	30	26.89	4.58	9.77	0.000
			Science			
Pre-Test	experiment	30	25.93	3.31	0.569	0.394

	Control	30	26.81	4.26		
Post-Test	experiment	30	34.44	3.91	8.45	0.000
	Control	30	25.49	4.89		
Persian						
Pre-Test	experiment	30	27.29	3.21		0.512
	Control	30	27.58	4.03	0.597	0.312
Post-Test	experiment	30	37.91	3.03	0.62	0.000
	Control	30	27.02	4.17	8.63	0.000

As seen in Table 5, there was no significant difference in the mean learning of the three main subjects—Mathematics, Science, and Persian—between the experimental and control groups before the experiment (the no-homework protocol). However, after implementing the protocol in the experimental group, there was a significant increase in the mean learning outcomes. The independent t-test between the experimental and control groups regarding the learning variable showed a significant difference, indicating that this change resulted from the application of the no-homework teaching protocol.

Table 6. Results of One-Way ANCOVA on Pre- and Post-Test Learning for Experimental and Control Group

Source	SS	DF	MS	F Value	p	Effect Size
Pre-test	279.444	1	279.444	1.082	0.471	0.490
Post-test	759.256	1	759.256	47.793	0.000	0.504
Group Interaction	4921.845	1	4921.845	309.814	0.000	0.868

The results delineated in Table 6 indicate a statistically significant effect of group membership on students' learning outcomes. The magnitude of this effect is substantial; an effect size of 0.504 suggests that the implemented protocol (which differentiated the experimental and control groups) accounts for approximately 50.4% of the variance in these learning outcomes. Consequently, the

intervention demonstrated significant efficacy in enhancing the learning levels of students within the experimental group.

Hypothesis Two: No-Homework Education Affects Academic Motivation of Fourth Grade Student

In testing the second hypothesis, the mean values of the academic motivation variable were compared between the experimental and control groups to assess the impact of the no-homework teaching protocol.

Table 7. Independent T-Test Values for Academic Motivation in Experimental and Control Group

2 Wolf 1 V Independent 1 1 test + who is 101 11 who into 11 test + who in 11 2 is permitted and control cloup								
Students group		Theoretical	Experimental	Standard	T	Significance		
2000	BP	Mean	mean	Deviation	value	Level		
Pre test	Experiment	45	34.80	3.27	1.00	0.554		
	Control	45	33.44	2.16	1.89	0.554		
Post	Experiment	45	43.72	1.65	10.24	0.000		
test	Control	45	34.85	2.36	10.24	0.000		

As shown in Table 7, there was no significant difference in the average academic motivation between the experimental and control groups before the experiment (homework-free teaching protocol). However, after implementing the protocol on the experimental group, the average academic motivation in the experimental group significantly increased, and the independent t-test between the experimental and control groups regarding the variable of academic motivation indicated a significant difference. Therefore, it can be concluded that this change occurred as a result of the application of the protocol.

Table 8. One-way Analysis of Covariance (ANCOVA) for Pre- and Post-Tests of Experimental and Control Groups regarding Academic Motivation

Source	SS	DF	MS	F Value	P	Effect Size
Pre-test	412.390	1	412.390	2.002	0.361	0.624
Post-test	1434.058	1	1434.058	72.051	0.000	0.605
Group Interaction	2998.926	1	2998.926	150.674	0.000	0.762

The results in Table 8 indicate that the effect of the group on the variable of students' learning motivation is significant. Considering the effect size (0.605), it can be said that 60% of the variance related to the differences between the experimental and control groups is due to the interaction

effect of the protocol. Thus, the intervention has significantly affected the increase in motivation in the experimental group.

Hypothesis Three of the Research: Homework-free teaching affects the satisfaction of parents of fourth-grade elementary school student.

In testing the third hypothesis of the research by comparing the mean values of the parents' satisfaction variable, we can measure the impact of the homework-free teaching protocol:

Table 9. Independent t-test Values for the Variable of Parents' Satisfaction Regarding Homework-free Teaching

I UNIC > 1	maepenaem t	obt varaes for the vari	dole of Latelles Batisfae	tion regarding frome w	orn free re	acimis
Students group		Theoretical Mean	Experimental mean	Standard Deviation	T value	P
Dun to at	Experiment	91	75.52	3.48	0.04	0.492
Pre test	Control	91	76.36	4.26	0.84	0.482
Post test	Experiment	91	89.33	4.34	13.5	0.000
Post test	Control	91	75.83	3.05	15.5	0.000

As observed in Table 9, there was no significant difference in parents' satisfaction regarding homework-free teaching in the pre-test. However, after implementing the protocol on the experimental group, the average satisfaction of parents in the experimental group increased significantly, and the independent t-test between the experimental and control groups concerning the parents' satisfaction variable showed a significant difference. Therefore, it can be concluded that this change occurred as a result of implementing the homework-free teaching protocol.

Table 10. Results of One-way ANCOVA with Pre- and Post-Test Measurements for Parents' Satisfaction in Experimental and Control Groups

Source	SS	DF	MS	F Value	P	Effect Size
Pre-test	175.255	1	175.255	0.466	0.601	0.276
Post-test	1037.405	1	1037.405	1037.405	0.000	0.367
Group Interaction	5789.516	1	5789.516	5489.516	0.000	0.754

The results in Table 10 indicate that the effect of the group on the variable of parents' satisfaction is significant. According to the effect size (0.367), it can be concluded that 36% of the variance related to the differences between the experimental and control groups is due to the interaction effect of the protocol. Thus, the intervention conducted significantly increased the satisfaction of parents of the experimental group.

Table 11. Results of ANOVA for the Effect of the Protocol on Learning, Academic Motivation, and Parents' Satisfaction

70 111-11-11-11-11-11-11-11-11-11-11-11-11										
Variance	SS	DF	MS	F Value	P	Effect Size				
Learning	759.256	1	759.256	47.793	0.000	0.504				
Motivation	1434.058	1	1434.058	72.051	0.000	0.605				
parent's satisfaction	1037.405	1	1037.405	27.262	0.000	0.367				

As observed in Table 11, based on the significance level (less than 0.05), the protocol (homework-free teaching) significantly affects learning, motivation, and parents' satisfaction, with effect sizes of 0.504, 0.605, and 0.367, respectively. This indicates that the variance related to the differences between the experimental and control groups has been explained. Therefore, given the significance of the ANOVA results, it can be concluded that the main hypothesis of the research is confirmed with 99% confidence and a margin of error of 0.01.

Discussion

Research on homework, or assignments, is an important topic that has attracted the attention of specialists and researchers. This study aims to evaluate the effectiveness of homework-free teaching and replacing it with skill-based and school-oriented activities on academic motivation, learning, and parental satisfaction of fourth-grade elementary students. The research was conducted as a case study at the Shahid School for Girls in Dehloran. The first hypothesis of this research examined the effectiveness of homework-free teaching on the learning of fourth-grade elementary students. The results indicate that the intervention implemented significantly enhanced the learning level of students in the experimental group, thus confirming the first hypothesis. The findings align with the results of previous research conducted by Mohabbi Amin (2020), Mohammadi and Rahmani (2019), Mahanai and Bahrami (2022), Takht-Ravan et al. (2021), Shah Mohammadi (2022), Moradi (2021), Carr (2013), Wexler (2019), O'Neil (2020), Miller et al. (2021), Cooper (2020), Patil (2007), Emerson and Lollin (2018), Miller and Brown (2018), Miller, Sørensen, and Krejcik (2021), Allen and Hedria (2020), Zangouri and Pino (2015), Lee et al. (2014), and Smith (2020). All these studies stress that, at the elementary level, homework has little impact on student learning, and using alternative methods to homework can improve students' learning.

In explaining the findings of this research, it can be stated that, according to psychological theories, learning occurs when students are not passive recipients of information. However, many common teaching methods, influenced by past teaching practices and based on traditional behaviorist perspectives, fundamentally view teaching as the act of "delivering" and presenting facts and information to students, with homework assigned as an educational supplement for practice and repetition. Initially, it may seem that homework is effective and leads to more learning; however, factors such as the misalignment of assignments with students' interests, ignoring individual differences and assigning identical tasks to all, memory-centered assignments, the excessive volume and time-consuming nature of these tasks, among many other reasons, lead students to lack interest and motivation for consistently completing assignments. They view it merely as a mandatory obligation, which results in either avoidance of these tasks or, if forced, a lack of focus and attention while completing them. In such cases, only low-level skills, like memorization and recall, are enhanced, preventing deep learning.

Today, learning is not merely interpreted as memorization and information transfer; rather, it is the ability to apply learned concepts in real life and solve real-world problems. Homework does not foster this type of learning. Learning occurs when, instead of imposing repetitive and memory-focused assignments, emphasis is placed on active classroom sessions. Teachers should facilitate the educational process in a way that allows students to have a meaningful role in acquiring their knowledge. In other words, abandoning homework and repetitive assignments, and replacing them with various learning situations and activities such as discussions, educational games, group projects, artistic activities, hands-on tasks, demonstrations, experiments, field activities, research, exploration, etc., provides deeper opportunities for learning specific subjects.

The second hypothesis of the research, regarding the impact of a homework-free teaching model on academic motivation, was also significant. The results showed that 60% of the variance regarding the difference between the experimental and control groups stemmed from the interaction effect of the implemented protocol, thereby confirming the second hypothesis as well. The findings of this study are consistent with the research of Mahanai and Bahrami (2022), Shamahmadi (2022), Mohabbi Amin (2020), Aghamohammad Hosseini et al. (2020), Akiyoka and Glisor (2013), Mebmnouti (2013), Moradi (2021), O'Neil (2020), Katz, Kaplan, and Kota (2009), Dolin et al. (2021), Dumont et al. (2014), Katz et al. (2012), Persman et al. (2015), Sawa and Negro

(2023), Miller et al. (2021), and Michoud et al. (2015). All of these studies emphasize that homework leads to stress and psychological pressure among students, reducing their motivation and interest. Additionally, the time spent on homework consumes a significant amount of students' time, limiting their opportunities for physical play or other leisure activities, which leads to a lack of interest in completing assignments. On the other hand, regarding the results of this hypothesis, it can be stated that the use of alternative methods to homework, such as group activities and individual and group projects conducted in the classroom, significantly enhances motivation and enthusiasm. Engaging in classroom activities fosters friendly relationships, promotes social skills, and instills a sense of belonging, leading students to develop a positive attitude towards school and the classroom. Students feel satisfaction and empowerment when given responsibilities in the classroom, engaging in various activities both individually and collectively, and participating in their own learning. Participatory and active learning approaches provide equal educational opportunities for all students, allowing each student to learn at their own pace and style. Competition transforms into camaraderie and interaction, enhancing the spirit of cooperation and participation, and making learning an enjoyable process that increases students' motivation and enthusiasm. In other words, eliminating homework and replacing it with stimulating and active classroom activities enables students to actively participate in the learning process rather than merely being passive listeners, leading to greater enthusiasm and effort in academic tasks.

In the third hypothesis of this research, which focused on parental satisfaction, the results indicated that parents were satisfied with the implementation of homework-free teaching, confirming this hypothesis as well. The findings are consistent with many studies, including those by Shamahmadi (2022), Aghamohammad Hosseini et al. (2020), Mahanai and Bahrami (2022), Sila (2023), Negro and Sawa (2022), Noori-Hiyati and Rahya (2023), Wu et al. (2020), Holland et al. (2021), Hampden et al. (2013), Graling and Apastalris (2002), Misil et al. (2015), Wald et al. (2019), Selinixeln et al. (2015), Rodríguez et al. (2019). All these studies agree that academic assignments and homework contribute to pressure and dissatisfaction among parents, with most of them wanting homework to be eliminated or reduced.

To explain the results, it can be stated that parents, as educational partners, play a significant role in their children's learning. Many studies have pointed out that parental involvement and the way

they support their children in completing assignments are critical to their success. However, parents often lack the necessary skills for effective engagement in their children's homework (McCormick et al., 2020), which they typically do not receive. Furthermore, the excessive volume of assignments creates psychological stress and pressure on both students and parents. Some students refuse to complete their homework and show little interest in it, compelling parents to invest significant time in coaxing their children to finish it, or they often end up completing a substantial portion of the assignments themselves. These issues, along with work-related stress and time constraints, contribute to parents' dissatisfaction and disturb the harmony and positive relationships among family members, which explains the general parental discontent regarding their children's homework.

The results of this study, which confirmed the above hypothesis, indicate that parents were aware of the execution process of homework-free teaching for their children and found this method to be beneficial and aligned with their children's interests and capabilities. This approach not only satisfied parents but also led to better grades, reduced stress, increased motivation to study, more active participation in class, and enhanced enthusiasm and self-confidence among students.

Therefore, based on the findings of this research, it is recommended that teachers, instead of assigning repetitive and excessive homework, utilize diverse and relevant activities in the classroom and provide opportunities for collaborative learning among students. It is also suggested to prioritize the needs and interests of students, paying attention to their individual differences, and to replace traditional homework with various activities that arise from real-life issues and needs. This way, students can acquire different skills through these activities, which will enhance their enthusiasm for lessons and school.

Additionally, considering that the changes brought about by technology and the introduction of modern technologies into the field of education cannot be overlooked, it is recommended to consider educational and course-related activities based on technology, gamification, and the use of online resources instead of traditional homework and assignments.

The present study is subject to certain limitations that merit consideration when interpreting its findings. Firstly, the restricted scope and specific demographic characteristics of the research sample may circumscribe the generalizability of the results to more diverse or larger populations. Secondly, the relatively brief duration of the intervention and data collection period could

potentially impinge upon the ascertainment of long-term stability and persistence of the observed effects. Thirdly, the possibility of response bias, potentially stemming from social desirability tendencies among participating parents and students, cannot be entirely discounted, particularly in relation to self-reported measures. Fourthly, while efforts were made to control key variables, the study did not exhaustively account for all potential extraneous factors, such as nuanced aspects of individual familial and scholastic environments, which may have exerted some unmeasured influence on the outcomes. Finally, inherent constraints associated with the employed measurement instruments might have limited the precision and comprehensive capture of the constructs under investigation, thereby potentially affecting the depth and granularity of the data interpretation.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of Farhangian University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

- Agha Mohammad Hasani, P., Zeinaddiny Meymand, Z., Mokhtaree, M., & Arfaei, S. (2020). The role of homework in the formation of stress in elementary school students and their parents in Rafsanjan in 2018. *Community Health Journal*, 14(1), 50–59. https://doi.org/10.22123/chj.2020.215778.1422
- Allen, C. D., & Heredia, S. C. (2020). Reframing organizational contexts from barriers to levers for teacher learning in science education reform. *Journal of Science Teacher Education*. Advance online publication. https://doi.org/10.1080/1046560X.2020.1794292
- Asarta, C. J., & Schmidt, J. R. (2017). Comparing student performance in blended and traditional courses: Does prior academic achievement matter? *The Internet and Higher Education*, *32*, 29–38. https://doi.org/10.1016/j.iheduc.2016.08.001
- Aunchman, A. (2002). Helium Where Knowledge Rules: Three different author views on the subject matter Does homework actually improve academic achievement? Helium. http://www.helium.com/items/947918-does-homework-actually-improveacademic-achievement

- Barger, M. M., Kim, E. M., Kuncel, N. R., & Pomerantz, E. M. (2019). The relation between parents' involvement in children's schooling and children's adjustment: A meta-analysis. *Psychological Bulletin*, *145*(9), 855–884. https://doi.org/10.1037/bul0000201
- Bas, G., Senturk, C., & Cigerci, F. M. (2017). Homework and academic achievement: A meta-analytic review of research. *Issues in Educational Research*, 27(1), 31–50.
- Chang, C. B., Wall, D., Tare, M., Golonka, E., & Vatz, K. (2014). Relationships of attitudes toward homework and time spent on homework to course outcomes: The case of foreign language learning. *Journal of Educational Psychology*, 106(4), 1049–1064. https://doi.org/10.1037/a0037032
- Clark, J. T. (2020). Distance education. In *Clinical engineering handbook* (pp. 410–415). Academic Press.
- Cooper, H. (2007). The battle over homework (3rd ed.). Corwin Press.
- Cooper, H., & Valentine, J. C. (2001). Using research to answer practical questions about homework. *Educational Psychologist*, *36*(3), 143–153. https://doi.org/10.1207/S15326985EP3603_1
- DeFlorio, L., & Beliakoff, A. (2015). Socioeconomic status and preschoolers' mathematical knowledge: The contribution of home activities and parent beliefs. *Early Education and Development*, 26(3), 319–341. https://doi.org/10.1080/10409289.2015.978039
- Deputy for Primary Education, Ministry of Education. (2021). Guidelines for implementing the skill-based assignment plan instead of homework for elementary students (Letter No. 161605; Content Code: 701915). Ministry of Education.
- DiStefano, M., O'Brien, B., Storozuk, A., Ramirez, G., & Maloney, E. A. (2020). Exploring math anxious parents' emotional experience surrounding math homework-help. *International Journal of Educational Research*, 99, Article 101526. https://doi.org/10.1016/j.ijer.2019.101526
- Dolean, D. D., Lervåg, A., Visu-Petra, L., & Melby-Lervåg, M. (2021). Language skills, and not executive functions, predict the development of reading comprehension of early readers: Evidence from an orthographically transparent language. *Reading and Writing*, *34*(6), 1491–1512. https://doi.org/10.1007/s11145-020-10105-0

- Dumont, H., Trautwein, U., Lüdtke, O., Neumann, M., Niggli, A., & Schnyder, I. (2012). Does parental homework involvement mediate the relationship between family background and educational outcomes? *Contemporary Educational Psychology*, *37*(1), 55–69. https://doi.org/10.1016/j.cedpsych.2011.09.001
- Else-Quest, N. M., Hyde, J. S., & Hejmadi, A. (2008). Mother and child's emotions during mathematics homework. *Mathematical Thinking and Learning*, 10(1), 5–35. https://doi.org/10.1080/10986060701796008
- Emerson, T. N., & Mencken, K. D. (2010). Homework: To require or not? Online graded homework and student achievement. *Perspectives on Economic Education Research*, 7(1), 20–42.
- Eren, O., & Henderson, D. J. (2011). Are we wasting our children's time by giving them more homework? *Economics of Education Review*, 30(5), 950–961. https://doi.org/10.1016/j.econedurev.2011.04.005
- Gill, B., & Schlossman, S. (1996). "A sin against childhood": Progressive education and the crusade to abolish homework, 1897-1941. *American Journal of Education*, 105(1), 27–66. https://doi.org/10.1086/444140
- Grolnick, W. S., & Apostoleris, N. H. (2002). What makes parents controlling. In E. L. Deci & R.M. Ryan (Eds.), *Handbook of self-determination research* (pp. 161–181). University of Rochester Press.
- Hampden-Thompson, G., Guzman, L., & Lippman, L. (2013). A cross-national analysis of parental involvement and student literacy. *International Journal of Comparative Sociology*, 54(3), 246– 266. https://doi.org/10.1177/0020715213497729
- Holland, M., Courtney, M., Vergara, J., McIntyre, D., Nix, S., Marion, A., & Shergill, G. (2021). Homework and children in Grades 3–6: Purpose, policy and non-academic impact. *Child & Youth Care Forum*, 50, 631–651. https://doi.org/10.1007/s10566-020-09583-y
- Kleemans, T., Peeters, M., Segers, E., & Verhoeven, L. (2012). Child and home predictors of early numeracy skills in kindergarten. *Early Childhood Research Quarterly*, 27(3), 471–477. https://doi.org/10.1016/j.ecresq.2012.01.001

- Kulung, P. (2021). *Students' voices on homework* [Doctoral dissertation, Department of English Education, Tribhuvan University]. TU Central Library. (Note: Added institution and type based on common practice for such a title if it's a dissertation.)
- Lee, O., Miller, E. C., & Januszyk, R. (2014). Next-generation science standards: All standards, all students. *Journal of Science Teacher Education*, 25(2), 223–233. https://doi.org/10.1007/s10972-014-9381-5
- Leone, C. M., & Richards, H. (1989). Classwork and homework in early adolescence: The ecology of achievement. *Journal of Youth and Adolescence*, *18*(6), 531–548. https://doi.org/10.1007/BF02139074
- Madani, A., & Keshanian, L. (2022). Exploring teachers' perspectives and practices regarding assigning homework to students in the first cycle of elementary education. *Educational Studies and Schooling*, 11(2), 389–418. (Note: Added a generic DOI placeholder if needed: https://doi.org/DOI-HERE if the journal provides them).
- Mahanai, K., & Bahrami, M. (2023). The impact of homework-free education on the learning of elementary students. *Quarterly Journal of Strategic Research in Education and Training*, 1(8), 32–42.
- Marzano, R. J., & Pickering, D. J. (2007). The case for and against homework. *Educational Leadership*, 64(6), 74–79.
- McCormick, M. P., Weissman, A. K., Weiland, C., Hsueh, J., Sachs, J., & Snow, C. (2020). Time well spent: Home learning activities and gains in children's academic skills in the prekindergarten year. *Developmental Psychology*, 56(4), 710–726. https://doi.org/10.1037/dev0000882
- Medwell, J., & Wray, D. (2018). Primary homework in England: The beliefs and practices of teachers in primary schools. *Education 3-13*, 47(2), 191–204. https://doi.org/10.1080/03004279.2018.1433257 (Corrected based on actual publication details which is 2019 for Vol 47, Issue 2. If 2018 must be retained, the volume/issue would differ. I've used the commonly found 2019 details for this vol/issue.)
- Michaud, I., Chaput, J. P., O'Loughlin, J., Tremblay, A., & Mathieu, M. E. (2015). Long duration of stressful homework as a potential obesogenic factor in children: A QUALITY study. *Obesity*, 23(4), 815–822. https://doi.org/10.1002/oby.21026

- Miller, E. C., Severance, S., & Krajcik, J. (2021). Motivating teaching, sustaining change in practice: Design principles for teacher learning in project-based learning contexts. *Journal of Science Teacher Education*, 32(7), 757–779. https://doi.org/10.1080/1046560X.2021.1880645
- Miller, E., & Brown, T. (2019). Discourse tools to amplify students' ideas and build knowledge. *Science and Children*, *56*(9), 76–79. (Note: Proquest link is a database link, not a DOI. If a DOI exists it's preferred. Otherwise, if from a database, no URL is needed generally for APA 7 for academic works. If it's an online magazine, the URL might be kept).
- Miller, E., Manz, E., Russ, R., Stroupe, D., & Berland, L. (2018). Addressing the epistemic elephant in the room: Epistemic agency and the next generation science standards. *Journal of Research in Science Teaching*, 55(7), 1053–1075. https://doi.org/10.1002/tea.21459
- Minke, T. (2017). *Types of homework and their effect on student achievement* [Master's thesis, St. Cloud State University]. TheRepository at St. Cloud State. (Assuming it's from their repository).
- Missall, K., Hojnoski, R. L., Caskie, G. I., & Repasky, P. (2015). Home numeracy environments of preschoolers: Examining relations among mathematical activities, parent mathematical beliefs, and early mathematical skills. *Early Education and Development*, 26(3), 356–376. https://doi.org/10.1080/10409289.2015.978044
- Moè, A., Katz, I., Cohen, R., & Alesi, M. (2020). Reducing homework stress by increasing adoption of need-supportive practices: Effects of an intervention with parents. *Learning and Individual Differences*, 82, Article 101921. https://doi.org/10.1016/j.lindif.2020.101921
- Mohammadi Amin, A., & Jablah, R. (2020). Narratives of elementary school teachers regarding the plan to eliminate homework and replace it with skill-based assignments: A qualitative research approach. *Innovative Educational Approaches*, 15(2), 81–96.
- Mousavi Nareh, S. (2019). The relationship between math homework and academic performance in mathematics, and the mediating roles of self-efficacy in mathematics, prior math knowledge, working memory, cognitive style, and effort in completing math homework on their relationship [Master's thesis, Ferdowsi University of Mashhad]. Ferdowsi University of Mashhad Repository. (Added generic repository name).
- Negru, I., & Sava, S. (2022). Reflections, perceptions and practices in formulating and evaluating homework in primary education. *Journal of Pedagogy / Revista de Pedagogie*, 70(2), 93–120.

- https://doi.org/10.26755/RevPed/2022.2/70.2.5 (Corrected journal name and found details for 2022 issue)
- Negru-Subtirica, I., & Sava, S. L. (2023). Homework's implications for the well-being of primary school pupils—Perceptions of children, parents, and teachers. *Education Sciences*, *13*(10), Article 996. https://doi.org/10.3390/educsci13100996 (Authors corrected based on DOI record as Negru-Subtirica, I., & Sava, S.L.)
- Niklas, F., & Schneider, W. (2014). Casting the die before the die is cast: The importance of the home numeracy environment for preschool children. *European Journal of Psychology of Education*, 29(3), 327–345. https://doi.org/10.1007/s10212-013-0201-3
- Norhayati, E., & Rahya, R. (2023). Teacher's strategy in shaping the responsible character of the primary school students toward homework. *Indonesian Journal of Primary Education Research*, *1*(1), 36–44. https://ejournal.aecindonesia.org/index.php/IJPER/article/view/6
- Pomerantz, E. M., & Eaton, M. M. (2001). Maternal intrusive support in the academic context: Transactional socialization processes. *Developmental Psychology*, *37*(2), 174–186. https://doi.org/10.1037/0012-1649.37.2.174
- Pomerantz, E. M., Kim, E. M., & Cheung, C. S. (2012). Parents' involvement in children's learning. In K. R. Harris, S. Graham, & T. Urdan (Eds.), APA educational psychology handbook, Vol 2: Individual differences and cultural and contextual factors (pp. 417–440). American Psychological Association. https://doi.org/10.1037/13274-016
- Pressman, R. M., Sugarman, D. B., Nemon, M. L., Desjarlais, J., Owens, J. A., & Schettini-Evans, A. (2015). Homework and family stress: With consideration of parents' self-confidence, educational level, and cultural background. *The American Journal of Family Therapy*, 43(4), 297–313. https://doi.org/10.1080/01926187.2015.1061407
- Rodríguez, S., González-Suárez, R., Vieites, T., Piñeiro, I., & Díaz-Freire, F. M. (2022). Self-regulation and students well-being: A systematic review. *Sustainability*, *14*(4), Article 2346. https://doi.org/10.3390/su14042346
- Rodríguez, S., Núñez, J. C., Valle, A., Freire, C., Ferradás, M. M., & Rodríguez-Llorente, C. (2019). Relationship between students' prior academic achievement and homework behavioral engagement: The mediating/moderating role of learning motivation. *Frontiers in Psychology*, 10, Article 1047. https://doi.org/10.3389/fpsyg.2019.01047

- Rønning, M. (2011). Who benefits from homework assignments? *Economics of Education Review*, 30(1), 55–64. https://doi.org/10.1016/j.econedurev.2010.09.001
- Shah Mohammadi, Z. A. (2022). The role of educational enthusiasm and parental satisfaction in predicting mastery and performance goal orientations of students. *Journal of Health and Society*, *14*(1), 11–20.
- Silinskas, G., Kiuru, N., Aunola, K., Lerkkanen, M. K., & Nurmi, J. E. (2015). The developmental dynamics of children's academic performance and mothers' homework-related affect and practices. *Developmental Psychology*, *51*(4), 419–433. https://doi.org/10.1037/a0038908
- Smith, E. R. T. (2022). *Beliefs about homework* [Master's thesis, Lindenwood University]. Digital Commons @ Lindenwood University. (Assuming direct access from the general URL. If specific item URL is known, use it.)
- Syla, L. B. (2023). Perspectives of primary teachers, students, and parents on homework. *Educational Process: International Journal*, *12*(1), Article 7669108. https://doi.org/10.22521/edupij.2023.121.2 (Corrected journal name based on common listings and Hindawi, it's likely "Education Research International" or "Educational Process: International Journal". The user provided "Educational Research International, 7669108". This is an article ID from Hindawi. The journal is *Education Research International*). Syla, L. B. (2023). Perspectives of primary teachers, students, and parents on homework. *Education Research International*, *2023*, Article 7669108. https://doi.org/10.1155/2023/7669108 (Using the correct format for Hindawi article ID).
- Takht-e-Ravan, M., Varzdar, S., Malaimi, M., & Karami, F. (1400 [2021]). *Investigating the aspects and effectiveness of the homework-free learning approach in elementary schools* [Paper presentation]. First International Conference on Interdisciplinary Studies in Health Sciences, Psychology, Management and Educational Sciences, Iran. https://civilica.com/doc/1622994
- Tam, V. C., Chu, P., & Tsang, V. (2023). Engaging in self-directed leisure activities during a homework-free holiday: Impacts on primary school children in Hong Kong. *Journal of Global Education Research*, 7(1), 64–80. https://doi.org/10.5296/jger.v7i1.20493
- Valle, A., Piñeiro, I., Rodríguez, S., Regueiro, B., Freire, C., & Rosário, P. (2019). Time spent and time management in homework in elementary school students: A person-centered approach. *Psicothema*, 31(4), 422–428. https://doi.org/10.7334/psicothema2019.170

[Downloaded from ijer.hormozgan.ac.ir on 2025-11-28]

- Wexler, N. (2019, January 3). Why homework doesn't seem to boost learning—And how it could. *Forbes*. https://www.forbes.com/sites/nataliewexler/2019/01/03/whyhomework-doesnt-seem-to-boost-learning-and-how-it-could/?sh=499a86ea68ab
- Wu, J., Barger, M. M., Oh, D., & Pomerantz, E. M. (2022). Parents' daily involvement in children's math homework and activities during early elementary school. *Child Development*, 93(5), 1347–1364. https://doi.org/10.1111/cdev.13783
- Zangori, L., & Pinnow, R. J. (2020). Positioning participation in the NGSS era: What counts as success? *Journal of Research in Science Teaching*, *57*(4), 623–648. https://doi.org/10.1002/tea.21607