

Perceptions of Parents and Students towards Homework in Mathematics

Yousef Methkal ABD ALGANI^a, Younis Fareed ABU ALHAIJA^b

Abstract

Homework has become of great interest to educators and seems to lead to tension between parents and students. This study investigates parents and students' perceptions and involvement in homework. The main research question is, "what are the parents and students' perceptions towards homework in mathematics? Moreover, the way parents follow their children's homework and the difficulties they face and how they overcome these difficulties. Another objective focuses on identifying the relationships between parents, students, and teachers and to what degree they got influenced by the Ministry of Education that canceled homework in Israel. This study is a qualitative one based on interviewing 12 parents and 12 students from elementary schools in the Arab sector in Northern Israel. The interviews collected data concerning the participants' perceptions towards homework. The findings of the study show that most parents and students identify the goals and importance of homework. However, among the barriers that limit the students in doing homework is the Parental pressure and Math anxiety. Homework influences the interaction of the triangle of parent-student-teacher relationships. The research suggests the parents and students' solutions to promote the students in three levels: educational, interpersonal, social and educational spheres and the student learning Pattern. This study raises several dilemmas between the existing and desired according to students and parents' opinions.

Keywords: Homework in Mathematics, Involvement, Parents, Perceptions, Primary School

Introduction

Doing homework has been a controversial topic for many years. Surveys point to the limitations, deficiencies, and dangers of giving homework, while teachers require doing homework as an integral part of learning (Hong et al., 2015). Due to this controversy and lack of research in the Arab sector, the topic of the study was chosen, namely to examine the students and parents' perceptions and involvement towards homework. Surprisingly, in countries like Finland and Singapore, kids spend less time doing homework with an average of 1-2 hours a week. However, those countries excel in the PISA tests. The authors explain that those countries provide support systems that can reduce the amount of homework and still bring students towards success.

The Ministry of Education and Culture in Israel requires the provision of homework and it lists two main objectives: (1) Reinforcing the teaching materials; (2) Preparing for future studies; (Algani, 2019).

Parents' Involvement

Parental involvement that occurs in the education system is a social process that has recently been gaining momentum both worldwide and in Israel. The Israeli education system has been through several changes, starting from the notion that school is a bureaucratic institution subjected to the central government instructions (RAMA, 2017), moving to the lack of parental involvement in school as a "disadvantaged environment". The change that occurred in the 1970s was focused on granting more

About the Article

Type: Research

Received: 26 January 2022

Accepted: 5 May 2022

Published: 30 June 2022

DOI: 10.31805/acjes.992428

Corresponding Author:

Yousef Methkal Abd Algani

Sakhnin College, Israel.

E-mail: yosefabdalgani@gmail.com

^aYousef Methkal Abd Algani

ORCID: <https://orcid.org/0000-0003-2801-5880>

Department of Mathematics, Sakhnin College, Israel.

Department of Mathematics, The Arab Academic

College for Education, Sakhnin, Israel.

E-mail: yosefabdalgani@gmail.com

^bYounis Fareed Abu Alhaja

ORCID: <https://orcid.org/0000-0003-137-7712>

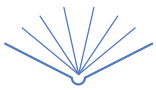
Department of Education, Sakhnin College, Academic

College for Teacher Education, Sakhnin, Israel.

E-mail: aboelh5@gmail.com

Suggested APA Citation

Abd Algani, Y. M., & Abu Alhaja, Y. F. (2022). Perceptions of parents and students towards homework in mathematics. *Academy Journal of Educational Sciences*, 6(1), 29-36. <http://dx.doi.org/10.31805/acjes.1063243>



autonomy to schools and establishing unique schools. What is the concept of 'parental involvement in school'? Many people discuss 'parental involvement' in the Israeli education system, yet the concept is not sufficiently defined.

Parents' Involvement in School

The parents' two most prominent educational activities are the 'home' and the 'educational setting', which are interrelated - the parents who help their children at home tend to be the active parents in the school, as well (Greenbaum and Fried, 2011).

Home-school relationships are affected by the changes in the family, the accelerated technological changes in the recent decades, and the impact of the various media - telephone, cellular, television, the computer and the internet - that have changed the access to knowledge, information, learning, and so on. The economic situation in general and the labor market situation in particular also affect the relationships among the family members. The political and security situation, as well as the level of personal safety the students feel at school, have an effect on the relationship between parents and school. The relationship between parents and school is affected by all the social, economic, technological and security changes taking place outside of school.

There are two main mechanisms by which parents' involvement in school promotes achievement. The first is through the parental social capital. Social control is the second mechanism. It occurs when parents and schools work together to build a consensus on what is expected of students. Parents and teachers get to know each other and agree on goals, both behavioral and academic, which is considered a sort of social "compass" for the children that reduce behavioral problems. Through social control, children receive messages about the importance of learning, and these messages improve children's ability, motivation, and behavior in schools.

The objectives of homework

According to the parents' perceptions, homework in mathematics can be used for different purposes as part of the educational process, where more than one objective can be found in each case. Training that is made possible through homework provides a foundation for deepening knowledge, mastering learning skills, application of concepts learned in class, preparing for a future class, expanding the learning environment and methods beyond the classroom and exposing students to diverse sources of knowledge (Trautwein & Lüdtke, 2009). Educational goals, which are developing the student's personal responsibility for learning, developing an independent learner and skills of independent learning; decision-making and problem-solving skills, will accompany the students later in their studies. Organizational goals: fulfilling an administrative guideline. Community goals: passing information to parents concerning the curriculum of their children (Trautwein & Lüdtke, 2009).

Skills needed for doing homework

In order to do homework in mathematics, students must acquire some basic skills. Acquiring effective learning strategies early can be seen as a preventive intervention for the negative consequences that homework may have. It may prevent cases of dependency on the parents; parents do their children's homework. Developing an ability of

organization and preparing a work environment can motivate students to do their homework. Preparing homework can be done anywhere around the house which allows the student to work conveniently and the parents to provide assistance when needed.

Students should also be taught how to plan their homework schedule based on external constraints such as their other activities and their families' (Goodwin, 2017).

Pros vs. Cons

Homework in mathematics, according to the parents, is a tool in the educational-academic process. The way of using it can promote education and the students' learning, or alternatively, damage their development and education (Gecer A. & Dag, 2012). Homework improves the students' learning habits. They can improve the students' perceptions toward school, and they can learn at any time (Kathleen & Snead, 2017)

Some of the conflicts that exist in the family between parents and children are related to doing homework. Homework can interfere with the routine of the family life and its culture of leisure. It can be used as a "carrier" by passing "school problems" onto family problems (Goodwin, 2017). Another concern is the acquisition of negative habits in addition to the positive skills that children sometimes acquire from doing homework. Children who fail to meet the requirements learn to lie to parents and teachers. Some often copy some or all their homework from their friends. On top of all of this, the ongoing accumulation of negative effects created by homework can generate negative attitudes toward school and students (Abd Algani, 2018; Abd Algani, 2021; Hong, Mason, Peng, & Lee, 2015; Paul, 2011; Núñez et al., 2015). Homework is perceived as an integral part of the school experience. At the same time, there are conflicts around this issue between teachers and students, between parents and their children and between teachers and parents. In general, there is no consensus among scholars regarding homework efficiency, in regard to improving the students' achievement.

The Purpose of The Study

One of the key goals of the educational system for students is to develop independent learners who are able to guide themselves. Doing homework in mathematics independently is a skill that students need throughout their school years. In addition, the research examines the difficulties as well as the barriers encountered by parents and students in crystallizing the personality of the independent learner.

Research Questions

From all the above, the researcher addresses the following questions:

- [1] What are parents and students' perceptions in elementary school towards homework in mathematics?
- [2] What are the difficulties that hinder homework in mathematics and how do they deal with them?
- [3] How does homework in mathematics affect the student-teacher relationship?
- [4] In what ways do parents' involvements in homework in mathematics manifest themselves?



Method

Research Design

The researcher uses the qualitative research to examine how parents and students perceive homework in mathematics and provide information that was previously unavailable as a parameter for improving the effectiveness of homework.

The collection of research data was done through semi-structured interviews conducted with each of the participants alone in a study room in the school. Each interview extended from half an hour to fifty minutes. The appointed time of the interview was fixed in advance, and at the beginning of the meeting, each pupil\ parent received brief information about the subject of the interview and was asked to agree to its recording, with the explanation that the research was anonymous and confidential. Agreement was given verbally by the pupils, parents and teachers.

Participants

The research included 24 participants (12 parents and 12 students); the students study in elementary schools in the Arab sector in Northern Israel. The students all study in the fourth grade; both boys and girls are defined as good students by their teachers and all of their grades above 90 in 4th grade. The parents are 6 academic parents with a B.A. degree, and 6 parents with a high-school diploma and their mean age is 35 (range between 30 – 40). All work till 4 clock in the afternoon. The socioeconomic ranking of Arab communities is located in the lowest clusters (Manna, 2008). The population of students is of low middle socioeconomic status.

Data Analysis

During the qualitative level of the study, a content analysis of the qualitative information was performed. The content analysis was based on locating repetitive meaning units in the collected initial information. Then, names and definitions for the content units that incorporate them were given, i.e., the categories. The categories were defined at the discretion of the researcher and according to the research questions. They were updated and further during the work. The information is categorized using flexible analysis units, including chunks.

The phrases included a sentence or several linked sentences that create independent content units that express the beginning and end of each interview. During the initial analysis, a long list of codes was created, some of which originated from the research literature on parental involvement and intervention in the school and some from the interviews themselves (see Fredman, 2005, pp. 255-268). This list grew sharper with each additional interview. Going forward, the codes are inductively grouped into categories that express common elements to the codes contained therein. This phase corresponds to the stage known as "coding axial" (see Fredman, 2005, pp. 255-268). The categorization of codes was performed by giving meaning to the data. The analysis was conducted on each interview; however, the study as a whole was based on many interviews. There was a deposit to be exposed to many data not just in order to many interviews and expressions of parents and students. We ensure an exposure to a lot of data in advance, not just the interviews but also many varied expressions of parents and students.

The initial fixed categories were confirmed or refuted; the categories were refined or rephrased. Additional categories

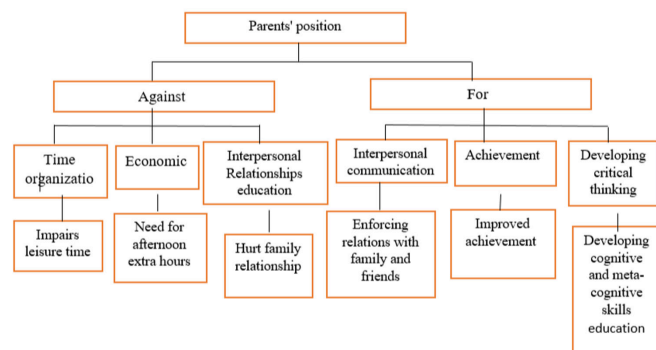
were found. The goal was to increase the validity in the later categories that were found to be related to one another. The ideas were grouped "under one roof" so that they became inclusive categories and were called "families." (see Fredman, 2005, pp. 255-268).

Results

The research findings are based on the analysis of the interviews. This section will show the findings based on parents' and students' statements as well as quotes that support these findings. perceptions of parents towards homework

The findings of the present study suggest that parents see homework in mathematics an important tool in assessing students and increasing school effectiveness. Despite this perception, parents argued that much homework and over-parental involvement hurt students, their evaluation and the student's level of responsibility. Interviewees noted, for example, that "homework contributes to an immediate increase in the academic achievement and understanding as well as controlling the material, yet it harms the leisure time due to the amount of homework. Homework helps in developing critical thinking and basic conceptualization. It helps students to communicate" (see Figure 1).

Figure 1. Parents' perceptions towards homework

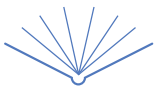


Impact of Homework on Parent-Student-Teacher Relationships

According to parents and students' interviews, homework in mathematics is a tool that influences the interaction between teachers, students and parents. Students report that if they do homework on time and in good quality, they get a compliment from the teachers and reinforcements from the parents. It gives them emotional and mental support that may strengthen their self-image. Selina reports that homework in mathematics strengthens the social ties in the family. "We sometimes work together; help one another so that homework becomes a positive experience at home". However some parents report a sort of harm to the relationships that manifest in acquiring negative habits. Students lie to avoid doing homework. In addition, parents report that it is very difficult to deal with homework because most parents are unaware of the study material, so they do not have the ability to help their children. Consequently, students come to class without doing homework.

The Characteristics of Homework

Parents and students emphasized the characteristics of good homework in mathematics while providing characteristics as challenging, as expressed by one parent: "A good homework is a challenging task that makes the students curious and close to their own world". A student said: "good homework should be interesting and challenging". He emphasized:



"homework should not be punishment or a completion of the material the teacher failed to complete during the lessons".

Most of the interviewees emphasized a very important characteristic which is: homework should be short and effective so that it would not be difficult. A point that was stated by one of the mothers: "good homework should be reflective and short". Another feature that emerged from parents' and students' responses is that good homework uses media, as an issue that is supported by one parent's statement: "we need a sort of homework that motivates the students to use the media and the student benefits from it". One of the students supported this feature: "good homework should be done in a group because it allows us to use more technological tools." Parents and students raised another feature which is addressing the student's level of difficulty: "good homework is the one that produces diversity in assignments and guides students to solve the assignments in a creative way" said one of the students. A parent supports the same characteristic by saying: "good homework serves a clear purpose, appropriate to the level of each student and to the subjects being taught in class at the same time".

According to the Ministry of Education, homework goals are directed towards practicing and developing of practicing skills. Doing homework strengthens the basis for deepening knowledge, mastery of learning, extending and applying skills learned in the class. These ideas got support by the student's words: "Practicing the material taught in class leads to deepening of knowledge and controlling the learning skills."

Another goal for homework is a social one. According to one student, "Sometimes homework is supposed to be done in groups, so it encourages social development and interpersonal relationships". Parents support this by saying that "giving homework in groups and getting students to meet outside the school strengthen the bonds among the students and creates a new social connection". On the other hand, some parents and students think that homework is a sort of punishment for the students. Homework socially detached students from the community because they spent a long time doing it.

Parental Consistency Toward Homework

Many parents follow their children doing their homework in mathematics. The method of consistency varies for the parents. A parent says: "I give him space for doing homework, yet I check and help when I notice mistakes". Another parent "I ask him if he finishes doing homework. Sometimes, I check but only the reading and writing skills. I am following because my son faces difficulties and I have to be persistent. In addition, I check if he has completed his homework correctly. In case he has not completed them properly, I help him and explain his mistakes and together we reach the correct answers". Another example of parents' consistency stated is in the following: "I help my son. Sometimes, my help is inappropriate because parents are unfamiliar with the new learning material and teaching methods; besides, the assistance I give to my son does not match what is taught in class".

The Motives and Impulses for Doing Homework

To know what contributes to the student to do homework in mathematics, the questions are: "What are the impulses that help students do homework?" and "Are there any suggestions for teachers to consider?"

The interviews with the students highlighted the existence of impulses and motivations for doing homework among

students and this split into two types of impulses, positive and negative. The positive impulses were expressed in one of the students' statements: "Homework is easy and fun. It is a pleasure". Another student added: "homework exposes me to class material and allows me to self-learn and browse various sources of information". On the other hand, negative impulses were expressed in the following statements: "I do homework out of the fear of the grades I will get at the end of the semester because homework has a certain percentage from the final grade in doing homework". One more student says: "homework is a punishment for me. I do homework because I fear my parents at the end of the day checking my friends and punishing me if I haven't done my homework."

Difficulties and Dilemmas in Doing Homework

The interviews highlight difficulties and dilemmas that students encounter while doing homework. It is based on the personality and the level of academic functioning and socioeconomic status. A student who comes from a low socioeconomic background showed a great difficulty in computerized homework assignments. This was expressed in his statement "I have a hard time with the computerized tasks because I have neither a computer nor an internet". At the same time, another student with low academic performance has shown many difficulties and he expressed it by saying, "I usually do not understand what is required from homework; I feel that I have no strategies how to do homework". Another student said, "at the end of the day, I am tired and not concentrating and when I sit down to do homework, I cannot get organized and sit for a long time. Consequently, I move from a task to another without completing any of them at the end of the day" answer another "I afraid of the Homework, I fried from my Parents if I didn't do it correctly".

Perceptions Toward Canceling Homework: Opposing Parents as Opposed to Supportive Students

Parents' perceptions toward cancelling homework in mathematics are seen as an important tool for assessing school effectiveness and policy. Homework is a tool in the educational-academic process. The use of this tool can contribute to the advancement of the students' education and learning, or it may cause damage to their development and education. Several interviews revealed positive perceptions of students who support homework cancellation. One of the negative perceptions of one parent, who totally opposes cancelling homework, suggests making a change in the type of the homework. He supports homework that encourages social skills: "I am against this position due to the importance of homework. However, homework and its types should be limited to encouraging research and social skills. We need homework the student can finish in a certain amount of time (relatively short) because life at home is not all about homework and studying. There are other areas of sports, social connections and hobbies children should experience". While students support homework cancellation, there are different positions that support partial cancellation and there is another group that fully supports homework cancellation. A student said: "I am very happy to cancel homework. I think one homework assignment a week is enough". He partially supported the idea of cancelling homework. He suggested a sort of reduction in homework assignments to be only once a week. On the other hand, another student who fully supported homework cancellation argued: "I do not have to do homework at home because it is not fair to complete what the teacher has not done in class". When asked about the social activities, he said, "I am with this position that homework hinders the social relationships and communication with others".



Coping with Difficulties When Doing Homework; Parents Vs. Students

Homework in mathematics is a source of difficulty for some students and their parents. However, it depends on the personality of the student, the parents who are involved in and the environment in which the student lives.

Parents have different suggestions for dealing with these difficulties. One of the parents who does not interfere in doing homework, throws the coping on the student himself, as he said: "We have to trust the child to manage on his own". There are parents who impose coping on a third party like teachers in school who help with coping or on private institutes: "I sent my children to an institute that helps a student do their homework and I pay money." On the other hand, there are parents who give independence in choosing a coping way, yet they become partners, mediators and mentors after learning about their son's strengths and weaknesses, as one parent states: "Teach him to do homework by himself. In the beginning, we have to sit with him, watch him work; learn what his strengths are and what he is having trouble with. If we discover objective difficulties, then we will look for an appropriate help. After a few minutes, we will get back to our own business. We should guide the children to manage with order and organization - organize the bag, return the notebooks and books to their place and so on".

The students suggested other ways of coping with their difficulties when doing homework. One of the difficulties was the effect of the socioeconomic situation, which is expressed in the lack of resources that puts the student in a sort of difficulty that forces him to find a solution that is economically or socially considered burdensome. This was shown in one of the students' interviews: "There are difficulties with online assignments because our homes are not yet ready for internet and my home does not have a computer because of the financial situation. Therefore, I copy from my friends or ask for others' help and sometimes look for help in an institute and pay money for that". Another suggested a way to deal with homework is using social groups and using technology tools like WhatsApp, as one student explained: "I do not understand some of the homework and there is no communication with the teachers, so they solve them using WhatsApp group".

Discussion, Conclusion and Suggestions

This study was conducted to reveal the variety of perceptions among parents and school students in the Arab elementary schools in Northern Israel.

The First Research Question Focused on Parental Involvement And Intervention In Homework

The findings of the study indicate that parental involvement increases in two ways. The first is the partnership, i.e., working collaboratively toward common goals, which illustrates well the school-parent collaboration; a more detailed description of this collaboration is clearly expressed. It is all about setting common goals in order to be active partners in the process of promoting the community. By contrast, there appear parents' reservations concerning the type of collaboration; parents support positive partnership and dismiss negative partnership. One more parents' reservation is the digital partnership. Parents are concerned due to the partnership that has become more digital today, not face to face, leading to an ineffective engagement.

The second way focuses on the immediate environment of students and families from low socio-economic backgrounds. Micro social factors, such as poor self-esteem

that is affected by low-status or day-to-day conducts in disadvantaged families have a significant impact on children's educational achievements (Glaze, 2017; (Snead & Burris, 2016) and parents' involvement. The research shows that the parents' socioeconomic background relates to their desire to be involved at school. It is found that parents from low socioeconomic backgrounds convey negative messages to their children concerning school achievement. In general, they are less supportive of all connected to homework (Fliesher & Ohal, 2010; Walk & Lassak, 2017). Furthermore, it was found that the socio-economic background of Arab students has a direct impact on the degree of the parental involvement in the school. The higher the students' socio-economic background, the more established the pupils are, the higher the level of parental involvement in Arab schools. In other words, parents tend to initiate contact with the school and their involvement is non-stop. In addition, parents of high socioeconomic status have a strong achieving competitive concept. They are very interested in their children's education. In contrast, parents of low socioeconomic status do not show much interest or involvement because of the lack of resources available to them (RAMA, 2017).

The Second Research Question Focused on Parents' Perceptions Toward Homework

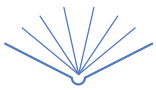
The findings of the present study show that at the declarative level, parents' perceptions towards homework in mathematics are seen as an important tool in assessing students and increasing school effectiveness. However, despite these perceptions, parents argued that homework and parent's over-involvement hurt the student's evaluation and impaired the student's level of responsibility. From a social point of view, parents report that homework strengthens the communication among students.

The findings of the study show that homework is a basis for deepening knowledge, mastering learning skills, developing student's personal responsibility for learning, making decisions and problem solving and encouraging creative thinking. There is a difference between defining the students' social goal versus parents' one (developing interpersonal relationships).

The findings reinforce the claims of the Ministry of Education. According to the CEO's circular, 1996, homework is a tool in the educational process. This use can contribute to the advancement of students' studying and education. The issues related to the advantages of homework in the educational-learning process in general, include learning motivation, addressing students' differences and the learning characteristics of homework.

The findings of the study showed homework from two levels: the positive which states that homework is a tool that positively influences the interaction between teachers, parents and students, specifically from teachers towards students who do their homework on time and with good quality. Those students get a compliment from the teachers and also reinforcement from the parents. Consequently, this gives the students emotional and mental support that may strengthen their self-image. Another positive finding states that homework strengthens social relationships in the family; it becomes a positive experience at home (Abd Algani, 2019; Xu, Fan, & Du, 2017;).

On the second level, the research shows that homework harms the relationships that are expressed in acquiring negative habits; students lie to skip doing homework. In addition, parents report that it is very difficult for them to deal with homework because most of them do not know or



understand the school material. Consequently, they do not have the ability to help their children, so the students come to the class without doing their homework. Besides the inability to help their children, parents claim that they cannot send their children to private teachers because of their financial situation. Homework causes little conflict between teachers and students, between parents and their children, and between teachers and parents; it is a meeting point between them on the subject. Some define this meeting point as a "battlefield" or "nightmare" for elementary school children (Catherine M., Scott, & Glaze, 2017; Núñez et al., 2015).

Homework in mathematics should be smartly designed. It does not only maintain the students' learning, but also connects the student's family with the school. Homework is a window through which parents can see what their children are learning. It has been found that students are less successful in school when their parents are perceived as intrusive and dominating. Motivation is an important key in learning and parents can subconsciously cause harm by not allowing their children enough space and autonomy to do their homework.

Another important aspect the study examined is the characteristics of good homework according to parents and students. The findings indicate the importance of homework. It was emphasized that a good homework is a challenging homework that makes a student to be curious and it is close to their world.

Another feature that emerged from the parents' and the students' responses is having lessons that are based on media with reference to another interpersonal group parameter that allows students to use more technological and experiential tools. This finding supports the study that examines integrating new technologies into learning, especially the challenges associated with homework (Xu, Fan, & Du, 2017).

Certain devices that value the organizational components appear while doing homework have been developed. One of these devices is the Homework Management Scale (Xu, 2008; Yang & Shoo, 2015). Parents and pupils raised another feature which is addressing the student's level of difficulty while noting that good homework is about giving a variety of assignments, guiding the students to solve the assignments in a creative way that serves a clear purpose; appropriate to each student's level, and the topics being taught in the class (Catherine, Scott, & Glaze, 2017; Kitsantas et al., 2011).

Another result in this field referred to the choice attribute, i.e., homework should be chosen to meet the students' needs while providing obligatory and optional tasks. Those results were also supported and confirmed by Cooper's study (2003) which examined good homework characteristics. The research found that shorter tasks that are more frequently given have had a greater impact than long and ongoing tasks. For homework to be great, they have to arise out of need and be meaningful.

In this study, parents' consistent ways of watching their children doing their homework were also examined. The results indicate differences in the parents' consistency. Some parents intervene in their children's homework only when spotting an error in their children's homework assignments. They support their children while giving them independence in doing their homework. Some parents test their children's literacy skills in case of difficulty and children need persistence (Kathleen & Snead, 2017).

In order to know what makes the student do homework, the findings indicate two types of impulses: positive impulses that show homework as doable and a sort of pleasure,

expose students to the material taught in class and allow students to self-learning by browsing various sources of information. The negative impulses indicate that students do homework out of fear because it will affect their grades at school. In addition, students expressed the negative impetus that homework was a punishment for them and that they do homework because they fear their parents and fear of deterioration in terms of achievement. Cosden and Macias (2001) found out that the student's achievement did not improve due to doing homework.

This current study enriched the existing literature concerning the difficulties that students face when doing homework. A student from a low socioeconomic background showed great difficulty in computerized homework assignments due to the lack of digital tools. Another finding relates to the student's academic achievement. Students with low level of performance demonstrate many difficulties especially in understanding what is required in homework because they do not have any strategies for how to do homework. Another possible dilemma is the damage that could hit the administrative functions, such as time management, autonomous management with learning equipment and material, organization and difficulties with ongoing attention, and sitting for a long time.

Another issue that needed clarification after the decision of the Ministry of Education to cancel homework is the parents' perceptions towards cancelling homework. According to the parents' perceptions, the findings indicate that homework is an important tool for assessing school effectiveness and policy. Homework is a tool in the educational-academic process. The way of using this tool can promote students' education and learning or alternatively cause harm to their development and education. Many parents have shown negative perceptions and opposed to cancelling homework completely. They support a sort of partial cancellation and suggest making some changes in the type of homework. They support the type of homework that encourages social skills and research. In addition, parents suggest minimization in the number of housework tasks, exercises and assignments given to the students on a daily basis. The reason for this suggestion is that homework allows the parent to share his child the material that is taught in school in the various subjects. As a result, it sometimes allows parents to intervene and contact the school if they notice that the school is burdening their son with homework and also provide assistance in case of facing difficulties in doing homework. On the side, we have the students who support homework cancellation, because it stresses them, impairs their creativity in their leisure time due to its length and spoils their time organization and social connections.

These results were supported by Haddad (1995), Donald Snead and Burriss (2017), and Eunsook, Min, & Yun (2011) studies that support cancelling homework because it creates more burden on children and prevents them from participating in important informal activities. Moreover, homework creates negative perceptions towards the school and learning in general, causes parental intervention that includes stress, embarrassment, and confrontation with the children that leads to strengthen the negative behaviors among students, such as copying homework in mathematics. Homework depends on the personality of the student and the parents who are also involved in the environment (Kathleen & Snead, 2017; Catherine, Scott, & Glaze, 2017).

In this study, we presented many of the dilemmas, the disadvantages and the solutions. The findings indicate that parents cope by giving independency to the children to manage on their own. On the other hand, there are parents



who give independence in choosing a coping mode yet; they are partners as mediators and guides after realizing their children's strengths and weaknesses.

The students suggested other ways of dealing with difficulties when doing homework. One of the difficulties, students face, was the impact of the socioeconomic situation which imposes a lack of resources that position the student in a sort of difficulty forcing him to find a solution that is economically or socially demanding. As a result, students copy or seek their friends' help and it is sometimes by seeking private lessons and paying money.

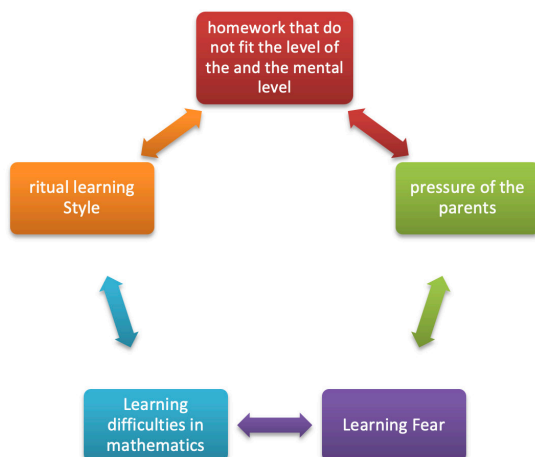
Implications

Parents' involvement and engagement in the issue of homework is a topic that has recently put on the educational agenda. This issue engages parents, policymakers in the Ministry of Education, educators and the public in general. In most schools in Israel, the educational staff feels that the relationship between the school and the parents requires re-examination, reflection and reconsideration (Fleischer, 2010). The present study joins extensive research literature from recent decades on the issue of parents' and students' involvement in doing homework, in different cultures, and in different geographical areas which indicates the great significance of this topic.

This study is a meaningful contribution to many fields. On the personal level, as a special education teacher, with students with learning difficulties and low socioeconomic status, it gave me new light on how to change homework and give in different levels so to accommodate more students and raise the positive self-perception among both students and parents. Research also gave me strategies on how to help students and parents within a supportive social group. This study contributed new knowledge to the field of researching parental involvement in homework, in families with low socioeconomic status in the Arab sector. The existing literature on this specific topic lacks knowledge in this area.

The researcher has developed a cycle for the relationship of the homework in mathematics to educational attainment and the learning style, and he called it the "Homework Cycle" (see fig. 2). It should be noted that the homework that does not fit the level of the material and the mental level of the students and the pressure of the parents leads the students to the ritual learning style and this leads to fear of the educational topic and difficulties in the educational topic as follows:

Figure 2. Homework Cycle



In light of the findings of the present study, the following recommendations were formulated:

Increasing parenting skills, i.e., parental involvement in school increases parental skills, making them better equipped with the knowledge to provide assistance to their children in school-related activities. Through the relationships with the teachers, parents learn important information about the school's expectations of the children; they also learn how to help with homework in mathematics and how to improve their children's learning at home. When parents get involved in their children's schools, they can be more effective. Schools need to run training and coaching programs for teachers, educational counselors, parents and students.

We need to deal with task length and homework in mathematics assignments and time needed to do homework at home, while adjusting the frequency of homework; the length of time needed to complete should be tailored to the ages of students: grades 1 - 3 get from 1 to 3 assignments per week. Time for each task is up to 15 minutes. In grades 4 - 6, 2 to 4 assignments per week, with 15-45 minutes dedicated to each assignment. Grades 7 to 9 should get 3-5 assignments per week. Each task lasts 45-75 minutes (Cooper, 1989).

The goals of homework should vary from age to age. Thus, in the elementary grades, the goals are: strengthening positive attitudes toward learning and school in general and developing learning habits and personal variables such as, internal focus and personal responsibility for learning. In the further grades, the goals are developing various learning skills and deepening control over specific skills.

Teachers will develop diagnostic skills to identify students' personal preferences when doing homework aiming to adapt teaching methods and/or homework assignments.

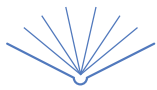
Teachers, educational counselors, students, and parents will be aware of the interpersonal differences in learning preferences and adapt the learning environment and homework assignments to the individual. By this approach, homework should be student-centered.

Homework should be balanced. It should encourage and enhance learning, but too much homework can damage. The National Education Association in the U.S. supports the "Ten Minutes Act", which recommends giving ten minutes of homework for each school year. This means that first graders receive ten minutes; second graders receive twenty minutes and so on, so that 12th graders receive a maximum of two hours of homework per day.

Methodological Reservations and Suggestions for Further Research

The main limitations of the current study presented below are connected to the methodological aspects - both in relation to the research procedure and also to the qualitative research tool. This research is a qualitative one which is based on phonological and interpretative perceptions, which can be presented in-depth (see Friedman, 2005, pp 231-239). The research shows how homework is perceived by parents and students themselves. Therefore, it does not allow inclusion in the usual sense (see Friedman, 2005, pp 244-249). This layer of the research does not convert; therefore, the findings cannot be generalized to the general population.

In addition, choosing parents and students for this study was a purposeful sample to best present appropriate



representations of the different levels of parents' involvement and intervention in homework. This is in contrast to the goal of representing the distribution that characterizes all parents from all social levels.

Suggestions for further research: developing a model and approach in raising the motivation in doing homework in mathematics with reference to:

1. Source of motivation: intrinsic motivation, parents' motivation and teachers' motivation.
2. The quality of motivation: it relates to the student's preference and organization. In other words, it refers to structure, order, space and time. These components represent the individual's preference for these questions: Which homework to do? In what order? Where? and when?

In conclusion, the current research discussed with four questions. The findings of this study show that most parents and students identify the goals and importance of homework. It was found that among the barriers that restrict parents and students when doing homework are the length and amount of homework tasks. Homework affects the parent-teacher relationships in two directions. The study offers solutions and suggestions for parents and students to advance the student on three levels: social, educational and interpersonal.

References

- Abd Algani Y., (2018). Applying creative skills in teaching math at primary school stage. *Journal of International Education, Economy and Business Conference Proceeding*, 6, 26-33.
- Abd Algani, Y., (2019). Innovative ways to teach mathematics: are they employed in schools?. *Journal of Computer and Education Research*, 7(14), 496-514.
- Abd Algani, Y. M. (2021). The effect of the collaborative learning technique on students' educational performance in math. *Journal for the Mathematics Education and Teaching Practices*, 2(2), 81-91.
- Cooper, H. (1989). *Synthesis of research on homework. Educational Leadership*. Nov. pp. 85-91.
- Cooper, H. R. (2006). Does homework improve academic achievement? A synthesis of research, 1987-2003. *Review of Educational Research*, 76(1), 1-62.
- Fleisher, G., & Ohel, S. (2010). Homework in the elementary school: Limitations and hazards. In A. Cohen (Ed.), *Studies in Education* (pp. 159-166). Haifa University.
- Fredman, E. (2005). *Measurement and evaluation: of a social and educational program*. Henriett Szold Institute.
- Gecer A., & Dag, F. (2012). A blended learning experience. *Theory and Practice*, 12(1), 438-442.
- Goodwin, B. (2017). The Power of Parental Expectations. *Educational Leadership*, 75(1), 80-81.
- Greenbaum, Z. & Fried, D. (eds.) (2011). Family connection - early childhood education: Snapshot and recommendations of the committee on family relations - Early Childhood Education Frameworks, Kindergarten-3rd grade, and their affiliation to the child's development and success in the Educational System. Jerusalem: Israeli National Academy of Sciences.
- Hong, E., Mason, E., Peng, Y., & Lee, N. (2015). Effects of homework motivation and worry anxiety on homework achievement in mathematics and english. *Educational Research and Evaluation*, 21(7-8), 491-514.
- Kathleen, B. G., & Snead, D. (2017). Middle school students' perceptions regarding the motivation and effectiveness of homework. *School Community Journal*, 27(2).
- Kitsantas, A., Cheema, J., & Ware, H. W. (Winter 2011). Mathematics achievement: The role of homework and self-efficacy beliefs. *Journal of Advanced Academics*, 22(2), 310-339.
- Novak, B. E., & Lynott, F. J. (2015). Homework in physical education: Benefits and implementation. *A Journal for Physical and Sport Educators*, 28(1), 22-26.
- Núñez, J. C., Suárez, N., Rosário, P., Vallejo, G., Valle, A., & Epstein, J. L. (2015). Relationships between perceived parental involvement in homework, student homework behaviors, and academic achievement: Differences among elementary, junior high, and high school students. *Metacognition and Learning*, 10(3), 375-406.
- Plummer, K. (1995). *Rethinking methods in psychology*. Segal Publications.
- Pope, D. B. (2015). *Overloaded and underprepared: Strategies for stronger schools and healthy, successful kids*. Jossey-Bass.
- RAMA. (2017). Snapshot: Mathematics Studies in Israel. Trends and Findings from the Israeli Education System. Report # 2.
- Rochelle, J. (2016). Investigating Gender Differences on Homework in Middle School Mathematics. Proceedings of the 9th International Conference on Educational Data Mining, June 29-July 2, Raleigh, NC.
- Trautwein, & Lüdtke, O. (2009). Predicting homework motivation and homework effort in six school subjects: The role of person and family characteristics, classroom factors, and school track. *Learning and Instruction*, 19, 243-258.
- Walk, L., & Lassak, M. (2017). Making Homework Matter to Students. *Mathematics Teaching in the Middle School*, 22(9), 546-553.
- Xu, J., Fan, X., & Du, J. (2017). Homework emotion regulation scale: confirming the factor structure with high school students. *Journal of Psychoeducational Assessment*, 35(4), 437-441.