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PARENTS' VIEWS REGARDING HOMEWORKS GIVEN IN SCIENCE COURSES

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Abstract. *The aim of this study was to explore parents' opinions about homework assignments given in science and technology courses. The sample of the study was composed of 764 parents who reside in the city of Osmaniye in Turkey. The data were collected by a "Parent Homework Scale" developed by the researcher. The instrument includes three subscales; function, attitude and behavior. U-Test and H-Test were employed to identify any difference among variables. The findings showed that there was no significant difference in parents' scores on attitude and behavior subscales of the instrument regarding gender, educational background, occupation, and average monthly income. When function subscales scores were investigated according to gender educational background, occupation, average monthly income, it was observed that civil servants in occupational category had lower function scores than self-employed, farmer, worker, artisan, and retired. It was found that university graduates in level of education category had lower function scores than primary school graduates, secondary school graduates, and high school graduates. It was also found that high income in the monthly income group had lower function scores than other members in each related group.*

Key words: *homework, parents' opinions, science education.*

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Introduction

Parental participation in the process of education is very important for student success at school. It consists of various dimensions such as home-based education activities, school-based education activities and cooperation of family members (Manz, Fantuzzo and Power, 2004). It is stated that parental participation has positive effects on student development and success (Keith, Keith, Troutman, Bickley, Trivette and Singh, 1993; Booth and Dunn 1996; Epstein, Simon and Salinas, 1997) and parental participation in the school work provides developments on student behaviors in a positive way (Cordry and Wilson, 2004). Therefore, homework assignments in which parents have an important role in its effective use, are important in teaching and learning process.

The Benefits of Homework Assignments

Homework is defined as school studies or tasks which are done in or out of the class (Hartensteiner and Marek-Schroer, 1992; Cooper and Valentine, 2001; Gill, 2004). We come across with the homework at all education levels from primary school to university. In the literature, it is stated that homework has lots of functions. These can be ordered as gaining scientific thinking skills, researching, gathering information and reaching the result by organizing (Çepni and Çil, 2011), bridging between home and school (Forster, 2000), providing parents with information about their child's education and school by putting them together (Department of Education, 2005; Dinçer and Ulutaş, 2005), getting better communication between parents, students and teachers (Van Voorhis, 2004; Olympia, Sheridan, Jenson, and Andrews, 1994), getting students adopt studying skills and habits, teaching individual study by redounding responsibility and discipline (National Parents Day Coalition, 1998; Cooper, 2001), getting ready for the subject, reinforcing the learnt items and providing reinforcement,

increasing the students' level of understanding (Ramdass and Zimmerman, 2011). Moreover it can be said that homework plays an important role in transferring the items learnt in the class to the real life. Therefore, the importance of homework in science and technology course increases.

TIMMS Achievement and Homework Relationship

In science education, it is emphasized that homework assignments are important for new learning (Gennaro and Lawrenz, 1992). There are many studies in literature that revealed the positive effects of homework assignments in science course success (Van Voorhis, 2001; Özben, 2006; Kaplan, 2006; Cooper, Robinson and Patall, 2006; Hizmetçi, 2007; Sabah and Hammouri, 2007; Jones, 2007; Büyüktokatlı, 2009; Kumandaş and Kutlu, 2010). Also international studies such as Trends in International Mathematics and Science Study (TIMSS) emphasize the importance of homework. For instance, there was a positive correlation between the students' success and the time they spent doing homework assignments (Postlethwaite and Wiley, 1992; Beaton, Martin, Mullis, Gonzalez, Smith, and Kelly, 1996). Thus, one can say that homework assignments play an important role in science education, which aims at understanding the scientific reasons of the events, facts, and situations that we usually come across in real life. However, some other research results stated that although more time is devoted for homework assignments in science class, the success decreases. Although countries like Taiwan, Singapore, Hungary, Japan and South Korea devote less time compared to Turkey, the success of these countries in science was higher in the 1999 and 2007 TIMMS Results (Özgün-Koca and Şen, 2002; Uzun, Bütüner and Yiğit, 2010). These results show the need for questioning the quality of homework assigned at science classes in Turkey. We can conclude that if quality and amount of the homework assignments are not well adjusted, its reflection on international exams can be negative.

Related to Literature

Generally, one can say that homework-related problems may cause academic failure, family-child conflict and family-school problems (Baumgartner, Bryan, Donahue, and Nelson, 1993; Olympia, Sheridan, and Jenson, 1994; Warton, 1998; Daniel-Crotty, 2000; Karustis, Power, Rescorla, Eiraldi, and Gallagher, 2000; Kralovec and Buell, 2000). Besides, it is reported that there are also problems related to quality of homework assignments and how parents perceive these assignments (Hersan and Kabapınar, 2008). Thus, it can be said that the parents' views need to be considered while developing and assigning homework.

Analysis of the homework-related studies (Baumgartner, Bryan, Donahue and Nelson, 1993; Epstein, Simon, and Salinas, 1997; Warton, 1998; Cooper and Valentine, 2001; Markow, Kim and Liebman, 2007; Öcal, 2009; Aladağ and Doğu, 2009; Corretjer, 2009; Arı, 2010; Çiftçi, 2010; Kumandaş and Kutlu, 2010; Tüysüz, Karakuyu and Tatar, 2010; Yılmaz and Tarı, 2010; Güney, 2010; Gedik, Altıntaş and Kaya, 2011; Kırılmazkaya, Keçeci and Zengin, 2011; Peltier, 2011; Deveci and Önder, 2013a; Deveci and Önder, 2013b; Wooten and Dillard-Eggers, 2013; Letterman, 2013) indicated no research conducted to present parents' perceptions regarding homework assignments given in science courses. In science education related homework studies, some researchers focus on students (Easton and Bennet, 1990; Smith, 1997; Stecher, Klein, Solano, McCaffrey, Robyn, Shavelson and Haertel, 1998; Klein and Stecher, 1998; Van Voorhis, 2001; Hong, 2001; Karamustafaoğlu, Çostu and Ayas, 2005; Yeşilyurt, 2006; Xu and Corno, 2006; Kaplan, 2006; Skaggs, 2007; Seebaugh; 2007; Hizmetçi, 2007; Batan, 2007; Aladağ and Doğu, 2009; Corretjer, 2009; Kumandaş and Kutlu, 2010; Gedik, Altıntaş and Kaya, 2011; Kırılmazkaya, Keçeci and Zengin, 2011; Deveci and Önder, 2013a), some others on teachers (Epstein and Van Voorhis, 2001; Altun and Arıkan 2007; Turanlı, 2009; Ersoy and Anagün, 2009; Arı, 2010; Çiftçi, 2010; Peltier, 2011). In addition, a few studies focus on parents (Tüysüz, Karakuyu and Tatar, 2010; Yılmaz and Tarı, 2010; Van Voorhis 2011; Deveci and Önder, 2013b). For instance, Albayrak, Yıldız, Berber and Büyükkasap (2004), have examined the views of parents about extracurricular teaching activities given at primary schools. Parents were found to believe that extra-classroom activities help students to learn, they enjoy student centered activities and activities where teacher assistance is available. Examining parents' views about

family participation in the homework assignments on science education, Yılmaz and Tarı (2010) found that family involvement increases students' academic achievement and strengthens communication and collaboration among family, school, and student. However, families also reported that they had trouble in finding tools and resources. Tam and Chan (2009) examined parental involvement in homework assignments and its relationship with primary school children's educational outcomes within the Chinese sociocultural context of Hong Kong. The results showed that primary school children across grade levels devote a substantial amount of time each day after school to homework assignments and revision, while parental involvement in the homework process varies. Such variation in parental involvement is found to relate to the child's grade level as well as the parent's educational attainment. Again in children's academic efficacy with higher parental involvement level is observed among junior students as well as those with parents of lower educational attainment. Tüysüz, Karakuyu and Tatar (2010) tried to identify perceptions of parents regarding performance tasks and problems they face while their children are completing those assignments by surveying 372 parents of 4th and 5th grade students. According to the study, parents think that performance tasks are useful and essential for their children, and contribute significantly to the social development of their children. Moreover, in the study it was reported that parents' attitudes and behaviors about helping their child in performance tasks were high. Tompkins (2010) investigated the experiences of 3 families about homework assignments given in primary school. He found that homework assignments had a negative effect on family time and experiences. He also found inequity in the amount of homework assigned to students of the same grade, especially in families that had a child working on an Individualized Education Plan. Parents shared their difficulty in helping to complete the assignments due to lack of understanding in the content area or when children refuse to complete their homework. Van Voorhis (2011) conducted 2-year longitudinal study in the frame of "Teachers Involve Parents in Schoolwork (TIPS)" program in elementary mathematics, language arts, and science in middle school. Each weekly standards-related TIPS assignment included specific instructions for students to involve a family partner in a discussion, interview, experiment, or other interaction. This study reported beneficial results of three longitudinal studies of TIPS interventions in comparison with regular homework in math, science, and language arts in the elementary and middle grades. Effect sizes and regression models consistently highlight TIPS (especially the 2-year group) as significant and positive predictors of achievement and emotional outcomes over the control condition. The studies mentioned above present that parents' involvement to homework practices and their perceptions regarding homework assignments as well as the quality of homework assignments have an effect on students' skills and performance at school. Therefore, in the current study, it was aimed to present a large group of parents' opinions regarding homework assignments given in science courses. Thus, in this research, the parents' attitudes towards homework, their views towards the function of those assignments and their behaviors about homework practices are questioned.

Methodology of Research

The study has been conducted within a survey research approach. Surveys can be utilized to obtain information from the respondent(s) about their opinion, characteristics, attitudes or prior experience (Johnson, 2001). Moreover, it allows to examine a group, event and problem, and to determine an existing situation or its features (Fraenkel and Wallen, 2005; Karasar, 2009; Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2009; Çepni, 2010). To this end the questionnaires were administered by the researchers.

Sample

This research was conducted in 2010-2011 academic year. The population of the study consisted of the parents of the 7th and 8th grade students in the city center of Osmaniye in Turkey and the sample of the study consisted of 764 parents. In this study we used convenience sampling because of time and availability constraints. A convenience sample is a set of persons who are convenient for study (Fraenkel and Wallen, 2005).

Data Collection Tool

To acquire data from parents regarding homework assignments given in Science and Technology Classes we used "Parents Homework Scale (PHS)" which consisted of function subscale (FSS), attitude subscale (ASS), and behavior subscale (BSS). The PHS was developed by the Deveci and Önder (In Press) and consisted of 27 items.

While developing PHS, first of all the items of the scale were written considering related scales in the literature. Then, the items were reviewed by three science education experts and two science teachers and according to their advice, necessary corrections were made and as a result the scale was composed of 42 five point Likert type (1= "I definitely don't agree", 2= "I don't agree", 3= "I am not sure", 4= " I agree", 5= "I definitely agree") items. After that, the pilot study was conducted with 180 parents and explanatory factor analysis was performed. The items with .50 or below factor loading and with item-total correlation below .39, are omitted from the scale. The variance explained is found as 44% for FSS, 49% for ASS and 46% for BSS. The alpha reliability coefficients for each subscale are found as .90 for FSS, .83 for ASS and .77 for BSS. The lowest score that can be obtained is 14, and the highest score is 70 for FSS, which consist of 14 items; while the lowest score is 7, the highest score is 35 for ASS, which consists of 7 items. Finally, the lowest score is 6; the highest score is 30 for BSS, which consist of 6 items. Obtaining a high score on the scale means that the parents have positive opinions about science homework assignments in the corresponding sub-scale.

Data Analysis

The data were first examined by Kolmogorov-Smirnov test for normal distribution. This test is used when the number of sample is over 50. Since the test results were significant ($p < 0.05$), the researchers used non-parametric tests. Therefore, in the study, Mann- Whitney U (MWU) Test, Krusukal-Wallis H (KWH) Test is used (Büyüköztürk, 2009; Çepni, 2010; Baştürk, 2010; Özdamar, 2011). The data were analyzed by SPSS 18.0 packet program and the level of significance was set as .05.

Results of the Study

This part provides demographic information regarding parents (gender, educational background, occupation, average monthly income) whose perceptions are analysed and the results of inferential statistics.

Descriptive Statistics

Demographic information regarding parents is presented in Table 1.

Table 1. Demographics.

Variable	Category	N
Gender	Female	257
	Male	507
Educational Background	Illiterate *	27
	Primary School Graduate	253
	Secondary School Graduate	153
	High School Graduate	193
	Graduate	138

Variable	Category	N
Occupation	Self-Employed	131
	Civil Servant	140
	Farmer	20
	Worker	124
	Artisan	86
	Retired	75
	Other	188
Average Monthly Income	250-500 TL**	128
	501-750 TL	157
	751-1000 TL	191
	1001-2000 TL	189
	More than 2000	85
	Blank ***	14
Total		764

** With the help of literate, parents completed the scale.*
*** Turkish currency*
**** Those who left this part blank*

When Table 1 is examined it is seen that there are 507 male and 257 female parents. Also, it shows that 27 parents are illiterate, 253 parents are primary school graduate, 153 parents are secondary school graduate, 193 parents are highschool graduates and 138 parents are university graduates. It is inferred that most of the parents who participated in the study are primary school graduates. Besides, it is seen that 131 of them are self employed people, 140 of them are civil servant, 20 of them are farmers, 124 of them are workers, 86 of them are artisans, 75 of them are retired and 188 of them have different professions except from these occupations. The parents who fill the "other" field in the scale have different professions like peddler or they are unemployed. The average income of the 128 parents is between 250- 500 TL, 157 parents' is between 500- 750 TL, 191 parents' is between 751- 1000 TL, 189 parents' is between 1001- 2000 TL and 85 parents' is more than 2000TL.

Inferential Statistics

In order to test whether parents' perceptions differ with respect to gender MWU test was administered and the results are presented in Table 2.

Table 2. Results of MWU-Test in Terms of Gender.

Sub-Scales	Gender	N	Mean Rank	Sum of Ranks	U	p value
Function	Male	507	377,11	191193,50	62415,50	0.34
	Female	257	393,14	101036,50		
Attitude	Male	503	374,21	188226,00	61470,00	0.26
	Female	257	392,82	100954,00		
Behavior	Male	492	361,77	177991,00	56713,00	0.18
	Female	245	383,52	93962,00		

As seen in Table 2, there is no significant difference between the sub-scale scores of parents by gender. Furthermore, when the scores obtained from each sub-scale of parents were analysed with respect to gender, it is observed that they are quite close to each other.

In order to investigate whether parents' perceptions differ with respect to level of education, profession and monthly income KWH test was performed and results are presented in Table 3, Table 4 and Table 5.

Table 3. Results of KWH Test in Terms of Education Status.

Sub-Scales	Education Levels	N	Mean Rank	Chi Square (χ^2)	p value	Difference
Function	1. Illiterate	27	429,26	43,41	0.00*	1>5, 2>5
	2. Primary School	253	417,73			3>5, 4>5
	3. Secondary School	153	413,27			
	4. High School	193	382,24			
	5. Graduate	138	275,01			
Attitude	1. Illiterate	27	281,56	6,71	0.15	
	2. Primary School Graduate	252	378,76			
	3. Secondary School	153	396,85			
	4. High School Graduate	192	376,57			
	5. Graduate	136	390,53			
Behavior	1. Illiterate	23	268,28	9,31	0.054	
	2. Primary School Graduate	246	353,81			
	3. Secondary School	147	390,51			
	4. High School Graduate	186	386,81			
	5. Graduate	135	365,87			

**p<0.05*

As seen in Table 3, there is no significant difference in attitude and behavior sub-scale scores of parents with respect to their education levels (For Attitude: $\chi^2 = 6,71$, $p > 0.05$; For behavior: $\chi^2 = 9,31$, $p > 0.05$). But there is a significant difference in function sub-scales scores [χ^2 (sd=4, n=764) =43,41, $p < 0.05$]. When the statistical results between function sub-scale scores and education levels are examined, it is observed that the function sub-scale scores of parents who is illiterate or completed primary school, secondary school, high school are higher than the function sub-scale scores of parents who are university graduates.

Table 4. Results of KWH Test in Terms of Profession.

Sub-Scales	Profession	N	Mean Rank	Chi Square (χ^2)	p value	Difference
Function	1. Self-employed	131	413,06	27.50	0.00*	1>2, 4>2, 5>2
	2. Civil Servant	140	304,06			6>2, 7>2
	3. Farmer	20	430,40			
	4. Worker	124	394,96			
	5. Artisan	86	425,28			
	6. Retired	75	420,63			
	7. Other	188	371,52			

Sub-Scales	Profession	N	Mean Rank	Chi Square (χ^2)	p value	Difference
Attitude	1. Self-employed	131	373,52	8.14	0.22	
	2. Civil Servant	137	364,69			
	3. Farmer	20	433,28			
	4. Worker	124	361,91			
	5. Artisan	85	351,00			
	6. Retired	75	404,67			
	7. Other	188	407,23			
Behavior	1. Self-employed	125	357,56	4.25	0.64	
	2. Civil Servant	138	349,96			
	3. Farmer	19	416,24			
	4. Worker	120	370,20			
	5. Artisan	83	398,40			
	6. Retired	73	380,62			
	7. Other	179	367,48			

**p<0.05*

As seen in Table 4, there is no significant difference in attitude and behavior sub-scale scores of parents with respect to their profession (For Attitude: $\chi^2 = 8.14$, $p > 0.05$; For behavior: $\chi^2 = 4.25$, $p > 0.05$). But there is a significant difference in function sub-scales scores [χ^2 (sd=6, n=764) =27.50, $p < 0.05$]. When the statistical results between function sub-scale scores and professions examined, it is observed that the function sub scale scores of parents who are self-employed, worker, artisan, retired or that are indicated as "other" are higher than the function sub scale scores of parents who are civil servant.

Table 5. Results of KWH Test in Terms of Average Monthly Income.

Sub-Scales	Average Monthly Income	N	Mean Rank	Chi Square (χ^2)	p value	Difference
Function	250-500	128	433,66	30,10	0.00*	1>4, 1>5
	501-750	157	390,34			2>5, 3>5
	751-1000	191	393,86			
	1001-2000	189	346,68			
	More than 2000	85	283,34			
Attitude	250-500	128	345,16	8,10	0.08	
	501-750	157	399,87			
	751-1000	190	376,38			
	1001-2000	188	385,60			
	More than 2000	83	333,31			
Behavior	250-500	123	328,74	7,34	0.11	
	501-750	151	362,02			
	751-1000	182	370,98			
	1001-2000	186	387,59			
	More than 2000	82	338,29			

**p<0.05*

As seen in Table 5, there is no significant difference in attitude and behavior sub-scale scores of parents with respect to their monthly income (For Attitude: $\chi^2 = 8,10$, $p > 0.05$; For behavior: $\chi^2 = 7,34$, $p > 0.05$). But there is a significant difference in function sub-scales scores [χ^2 (sd=4, n=750) =30.10, $p < 0.05$]. When the statistical results between function sub-scale scores and average monthly incomes are examined, it is observed that the function sub-scale scores of parents who have average monthly incomes of 250-500, 501-750 and 751-1000 TL are higher than the function sub scale scores of parents who have average monthly incomes of 1001-2000 and More than 2000 TL.

Discussion

In this study parents perceptions regarding homework assignments given in science and technology course were investigated. Results of the study presented a significant difference in the views of the parents about homework according to average monthly income, occupation and educational background ($p<.05$), but no significant difference was observed according to the gender ($p>.05$). Öcal (2009) did not find a significant difference in parents' strategies toward homework practices of 4th and 5th graders' according to educational background, job and monthly income. Güney (2010) and Tüysüz, Karakuyu and Tatar (2010) also found similar results. At this point, one can say that parents' attitudes towards homework and their behaviors for the homework practices show similarity according to gender. The difference in research results can be associated with different grades and quality of homework assignments given.

The perceptions of parents, whose average monthly income is low, are more positive than the perceptions of parents who have higher average monthly income, when the functionality of the homework assignments are considered. The reasons can be explained like that: the children of the families, whose income is low, don't have a chance to get a private lesson or attend a private course. Therefore, the family pays more attention to the homework assignments. Moreover, the families, who are in low socio economic class, stated that the homework assignments have negative effects on family life on the other hand, the families who are in middle and high socio economic class state vice versa (Perry, 2003). Similar results were also found by Keith et al. (1993), Ahioğlu (2006) and Şeker (2009). This can be because of the fact that the families who are in low socio economic class generally do not have a good educational background, and they have negative attitudes towards homework assignments because of the fact that they are not able to help their children as much as they want.

According to categories of occupation, self employed people, farmers, workers, artisans, retired parents were found to have positive thoughts about the homework assignments given in science and technology course than the civil servants. This may result from the fact that the civil servants cannot spend much time with their children and therefore, they cannot pay attention to the extracurricular activities given as homework to their children. Moreover they may have negative opinions regarding the functionality of the homework assignments since they generally consider those assignments as unqualified activities. Similarly, Şeker (2009) found that parents' participations regarding students' education and teaching activities show no difference according to parents' occupation. Doğru (2005) also found similar results.

Finally, it is found that illiterate, primary, secondary and high school graduate parents' opinions for the homework assignments given in science and technology course were more positive than the university graduate parents' opinions. This situation can be associated with the perception of university graduate parents, who have more knowledge and experience, that homework assignments do not have any educational functionality or are not qualified. In the study of Kotaman (2008) it was found that the university graduate parents participate more in their children's education and teaching period than the parents who are not university graduates. Albayrak, Yıldız, Berber, and Büyükkasap (2004) also reached the similar results. However, Tam and Chan (2009) found parallel results to current study. They have carried out their study on primary school students in Hong Kong and found that the families, who have low educational background, participate in their children's

academic activities more. Also, they found that parents get involved in student's homework to the detriment of the parents' education level (Balli, 1998; Epstein, 1986; Hoover-Dempsey, Bassler and Burow, 1995). Similarly, it was found that parent training positively influences homework practices (Patall, Cooper, & Robinson, 2008). Therefore, parents' educational background is effective in determining the quality and the function of the homework. The initial purpose of the parents who have a low educational background is to help their children rather than to question the quality of the homework assignment. The parents who have a high educational background pay more attention to the functionality of the homework. For this reason, it can be said that the parents who have high educational background have negative views about the functionality of the homework assignments given.

Conclusion

Finally, it is seen that the university graduates in the category of educational background, the families who have high incomes in the category of income level and the civil servants in the category of occupation have negative views when it is compared with the other variables. This reminds that homework assignments given in science and technology courses may be of poor quality and nonfunctional. In this respect, parents' views are important in the aspects of giving ideas about the quality of the homework.

Implications

Depending on the research results, in the forthcoming studies, case studies or phenomenological studies can be designed and also detailed interviews can be arranged with few numbers of parents. Furthermore, students' homework documents can be examined and examinations about the qualities of the homework can be applied. The same study can be conducted in different cities and countries and comparisons can be done. Similar applications can be utilized for other fields of study (math education, social science education, history education, etc.).

References

Ahioğlu, Ş. S. (2006). *Öğretmen ve Veli Görüşlerine Göre Farklı Sosyoekonomik Düzeydeki Ailelerini İlköğretim Birinci Sınıf Öğrencilerin Okuma Yazma Sürecini Etkileme Biçiminin Değerlendirilmesi*. Yüksek Lisans Tezi, Çukurova Üniversitesi, Sosyal Bilimler Enstütüsü, Adana.

Aladağ, C., & Doğu, S. (2009). Fen ve Teknoloji Dersinde Verilen Ödevlerin Öğrenci Görüşlerine Göre Değerlendirilmesi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *21*, 15-23.

Albayrak, M., Yıldız, A., Berber, K., & Büyükkasap, E. (2004). İlköğretimde Dres Dışı Etkimlikler ve Bunlarla İlgili Öğrenci Davranışları Hakkında Velilerin Görüşleri, *Kastamonu Eğitim Dergisi*, *12*, 13-18.

Arı, A. (2010). Öğretmenlere Göre Proje ve Performans Görevlerinin Uygulanmasında Karşılaşılan Sorunlar. *Elektronik Sosyal Bilimler Dergisi*, *9* (34), 032-055.

Balli, S. J. (1998). When Mom and Dad Help: Student Reflections On Parent İnvolvement With Homework. *Journal of Research and Development in Education*, *31* (3), 142-146.

Baştürk, R. (2010). *Bütün Yönleriyle SPSS Örnekli Nonparametrik İstatistiksel Yöntemler*. Ankara: Anı Yayıncılık.

Baumgartner, D., Bryan, T., Donahue, M., & Nelson, C. (1993). Thanks for Asking: Parent Comments About Homework, Tests, and Grades. *Exceptionality: A Special Education Journal*, *4* (3), 177–185

Beaton, A. E., Martin, M. O., Mullis, I. V. S., Gonzalez, E. J., Smith, T. A., & Kelly, D. L. (1996). *Science Achievement In The Middle School Years: IEA's Third International Mathematics And Science Study* (TIMMS). Chestnut Hill, MA: Boston College, Center for the Study Testing, Evaluating, and Educational Policy.

Booth, A., & Dunn, J. F. (1996). *Family School Links How Do They Effact Educational Outcomes*? Mahvah, Nj: Lawrence Erlbaum Associates, Inc.

Büyüköztürk, Ş. (2009). *Sosyal Bilimler İçin Veri Analiz El Kitabı* (10. Baskı). Ankara: Pegem Yayıncılık.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2009). *Bilimsel Araştırma Yöntemleri* (4. Baskı). Pegem Yayıncılık, Ankara.

Büyüktokatlı, N. (2009). İlköğretimde *Ev Ödevi Uygulamalarına İlişkin Öğretmen Görüşlerinin İncelenmesi*. Yüksek Lisans Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.

Cooper, H. (2001). *The Battle Over Homework: Common Ground For Administrators, Teachers, and Parents* (2nd Ed.). Thousand Oaks, CA: Corwin Press.

Cooper, H., & Valentine, J. C. (2001). Using Research To Answer Practical Questions About Homework. *Educational Psychologist*, *36*, 143–153.

Cooper, H., Robinson, C. J., & Patall, A. E. (2006). Does Homework Improve Academic Achievement? A Synthesis of Research 1987-2003. *American Educational Research Association*, *76* (1), 1-62.

Cordry, S., & Wilson, J. D. (2004). Parents As First Teacher. *Education, 125* (1), 56-61.

Corretjer, G. L. (2009). *Listen To Me! An Exploration of the Students Voices Regarding Homework*. Walden University, College Of Education.

Çepni, S. (2010). *Araştırma ve Proje Çalışmalarına Giriş*, (5. Baskı). Trabzon.

Çepni, S., & Çil, E. (2011). Fen ve Teknoloji Programı (Tanıma, Planlama, Uygulama ve SBS'yle İlişkilendirme). İlköğretim 1. ve 2. Kademe Öğretmen El Kitabı (3. Baskı). Pegem Yayıncılık. Ankara.

Çiftçi, S. (2010). İlköğretim Birinci Kademe 4. ve 5. Sınıf Öğretmenlerinin Performans Görevlerine İlişkin Görüşleri. *Elementary Education Online*, 9(3), 934-951. [Online] http://ilkogretim-online.org.tr/, retrieved on 15/04/2013.

Daniel-Crotty, S. (2000). *Parent-Mediated Homework İnterventions For Children With Attention-Deficit/Hyperactivity Disorder: Its İmpact On Academic And Family Functioning*. Unpublished doctoral dissertation, MCP/ Hahnemann University.

Department of Education. (2005). *Helping Your Child With Homework*, (ERİC, ED498937).

Deveci, İ., & Önder, İ. (2013a). The Students' Views Related to the Given Homeworks in the Science and Technology Courses: A Qualitative Study. *US-China Education Review A*, *3* (1), 1-9.

Deveci, İ., & Önder, İ. (2013b). Parents' Views About the Homework Given in Science and Technology Classes: A Qualitative Study, *US-China Education Review*. 3(7), 561-569.

Deveci, İ., & Önder, İ. (In Press). Fen ve Teknoloji Derslerinde Verilen Ödevlere Yönelik Öğretmen, Öğrenci ve Veli Ölçeklerini Geliştirme Çalışması. *Journal of Turkish Science Education*.

Dinçer, Ç. ve Ulutaş, İ. (2005). *Öğretmenler ve Anne Babalar Ev Ödevlerine Nasıl Yardımcı Olabilirler?* http://okulweb.meb.gov.tr/09/08/421998/annebaba.htm(01.11.2012).

Doğru, Ç. T. (2005). *Okul-Öğretmen-Aile İşbirliğinin Sınıf Yönetimine Etkisi*. Yayımlanmamış Yüksek Lisans Tezi, Zonguldak Karaelmas Üniversitesi Sosyal Bilimler Enstitüsü. Zonguldak.

Epstein, J. L, Simon, B. S., & Salinas, K. C. (1997). *Effects Of Teachers Involve Parents In Schoolwork* (TIPS) Language Arts İnteractive Homework İn Middle Grades. Phi Delta Kappa, Research Bulletin (18 September).

Epstein, J. L. (1986). Parents' Reactions To Teacher Practices of Parent İnvolvement. *The Elementary School Journal*, *86* (3), 277-294.

Forster, K. (2000). Homework Bridge too Far? *Issues In Educational Research, 9* (1), 21-37.

Fraenkel, J. R., & Wallen, N. E. (2005). *How to Design and Evaluate Research in Education* (Sixth Edition). New York: Published by McGraw Hill, 1221 Avenue of the Americas.

Gedik, N., Altıntaş, E., & Kaya, H. (2011). Fen ve Teknoloji Dersinde Verilen Ev Ödevleri Hakkında Öğrenci Görüşleri. *Journal of European Education*, *1* (1), 6-13.

Gennaro, E., & Lawrenz, F. (1992). The Effectiveness of Take-Home Science Kits Elementary Level. *Journal of Research in Science Teaching*, *29*, 985-994.

Gill, B. P. (2004). Villain or Savior? The American Discourse on Homework, 1950-2003. *Theory Into Practice*, *43* (3), 174-181.

Güney, Z. (2010). *İlköğretim 4-5. Sınıflarda Verilen Proje ve Performans Ödevleriyle ilgili Öğretmen ve Veli Görüşleri.* Yüksek Lisans Tezi, Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü, Denizli.

Hartensteiner, P. A., & Marek-Schroer, M. F. (1992). Two Sixth Grade Homework Policies and Their Effect On The Prompt Return Of Completed Homework Assignments. *Journal of Instructional Psychology*, *19* (4), 1-8.

Hersan, E., & Kabapınar, Y. (2008). Veli Görüşlerine Göre İlköğretim Sosyal Bilgiler Programının Öğrenciye Etkileri. *Ege Eğitim Dergisi*, 9(1), 151-172.

Hizmetçi, S. (2007). *İlköğretim 5. Sınıf Öğrencilerinin Ödev Stilleri İle Akademik Başarı Arasındaki İlişkinin İncelenmesi*. Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.

Hoover-Dempsey, K. V., Bassler, O. C., & Burow, R. (1995). Parents' Reported İnvolvement İn Students' Homework: Strategies And Practices. *Elementary School Journal*, *95* (5), 435-450.

Johnson, C. M. (2001) A Survey of Current Research on Online Communities of Practice. I*nternet and Higher Education* 4(1): 45–60.

Jones, J. (2007). *The Purpose of Homework and Its Relationship To Student Achievement*, Action Research Project.

Kaplan, B. (2006). *İlköğretim 6. Sınıf "Yaşamımızı Yönlendiren Elektrik" Ünitesinde Ev Ödevi Verilmesinin Öğrenci Başarısına ve Kavram Öğrenmeye Etkisi*, Yayınlanmış Yüksek Lisans Tezi, Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.

Karamustafaoğlu, S., Çostu, B., & Ayas, A. (2005). Basit Araç-Gereçlerle Periyodik Cetvel Öğretiminin Etkililiği. *Journal of Turkish Science Education*, 2(1), 19-31.

Karasar, N. (2009). *Bilimsel Araştırma Yöntemi* (19 Baskı). Nobel Yayıncılık. Ankara.

Karustis, J. L., Power, T. J., Rescorla, L. A., Eiraldi, R. B., & Gallagher, P. R. (2000). Anxiety and Depression In Children With ADHD: Unique Associations With Academic and Social Functioning. *Journal of Attention Disorders*, *4*, 133-149.

Keith, T. Z., Keith, P. B., Troutman, G. C., Bickley, P. G., Trivette, P. S., & Singh, K. (1993). Does Parental İnvolvement Effect Eighth Grade Student Achıevement? Structural Analysis of National Data. *School Psychology Review*, *22*, 474-496.

Kırılmazkaya, G., Keçeci, G., & Zengin, K. F. (2011). İlköğretim Öğrencierinin Fen ve Teknoloji Dersinde Performans Performans Görevlerini Hazırlarken Kullandıkları Bilgi İletişim Teknolojilerinin Tespiti. 6th International Advanced Technologies Symposium (IATS'11), 16-18 May 2011, Elazığ, Turkey.

Kralovec, E., & Buell, J. (2000). *The End Of Homework*. Boston: Beacon Press.

Kumandaş, H., & Kutlu, Ö. (2010). İlköğretim 5. Sınıf Öğrencilerinin Performans Görevlerine İlişkin Tutumlarını Etkileyen Faktörler. İlköğretim Online Dergisi, 9(2), 714-722. [Online]: http://ilkogretim-online.org.tr.

Letterman, D. (2013). Students' Perception Of Homework Assignments And What Influences Their Ideas. *Journal of College Teaching & Learning*, *10* (2), 113-122.

Manz, P. H., Fantuzzo, J. F., & Power, T. J. (2004). Multidimensional Assessment Of Family İnvolvement Among Urban Elementary Students. *Journal of School Psychology*, *42*, 461–475.

Markow, D., Kim, A., & Liebman, M. (2007). *The MetLife survey of the American teacher: The homework experience*. New York, NY: MetLife, Inc.

National Parents Day Coalition. (1998), *The ABC's of Parent İnvolvement in Education: Preparing Your Child for a Lifetime of Success*, Second Edition, Washington, DC, Appalachia Educational Lab., Charleston, WV, (ERİC, ED433138).

Olympia, D. E., Sheridan, S. M., & Jenson, W. R. (1994). Homework: A Natural Means Of Home School Collaboration. *School Psychology Quarterly*, *9*, 60-80

Olympia, D. E., Sheridan, S.M., Jenson, W. R., & Andrews, D. (1994). Using Student-Managed İnterventions To İncrease Homework Completion and Accuracy. *Journal of Applied Behavior Analysis, 27*, 85-99.

Öcal, S. (2009). *İlköğretim 4. ve 5. Sınıf Öğrencilerinin Ev Ödevlerine Yönelik Tutumlarının Oluşmasında Ailelerin ve Öğretmenlerin Rolü*. Yüksek Lisans Tezi, Mustafa Kemal Üniversitesi Eğitim Bilimleri Enstitüsü, Hatay.

Özben, B. (2006). İlköğretim İkinci Kademe Öğrencilerinin Fen Bilgisi Dersindeki Başarılarına Ev Ödevi Çalışmalarının Etkisi. Yayınlanmış Yüksek Lisans Tezi, Eğitim Bilimleri Enstitüsü Gazi Üniversitesi, Ankara.

Özdamar, K. (2011). *Paket Programlar İle İstatistiksel Veri Analizi* (8. Baskı). Kaan Kitapevi. Eskişehir.

Özgün-Koca, S. A., & Şen, A. İ. (2002). 3. Uluslar arası Matematik ve Fen Bilgisi Çalışması Tekrar Sonuçlarının Türkiye için Değerlendirilmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *23*, 145-254.

Patall, E. A., Cooper, H., & Robinson, C. J. (2008). The Effects of Choice on Intrinsic Motivation and Related Outcomes: A Meta-Analysis of Research Findings. *Psychological Bulletin, 134* (2), 270-300.

Perry, J. J. (2003). *İmpact of Homework for Families of Different Socioeconomic Levels*, California State University, Dıssertation of Master, Fullerton.

Postlethwaite, T. N., & Wiley, D. E. (Eds). (1992). *Science Achievement In Twenty-Three Countries The IEA Study Of Science II*. Oxford: Perganom Pres. Publishing.

Ramdass, D., & Zimmerman, B. J. (2011). Developing Self-Regulation Skills: The Important Role of Homework. *Journal of Advanced Academics*, *22* (2), 194-218.

Sabah, S., & Hammouri, H. (2007). Does Subject Matter Matter? Estimating The İmpact of İnstructional Practices and Resources On Student Achievement İn Science and Mathematics: Findings From TIMSS 2007. *Evaluation and Research in Education*, *23* (4), 287-299.

Şeker, M. (2009). *İlköğretim 5. Sınıf Öğrencilerinin Performans Görevlerindeki Başarıları İle Ailelerinin Eğitim-Öğretim Çalışmalarına Katılım Düzeyleri Arasındaki İlişkinin Belirlenmesi*. Yayınlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, Adana.

Tompkins, M. A. (2010). *Portraıt Of Four Famılıes' Perspectıves On The Socıal and Famılıal Implıcatıons of Homework In The Early Grades. Thesis of Master*, Faculty Of Educatıon Nıpıssıng Unıversıty, Ontarıo.

Tüysüz, C., Karakuyu, Y., & Tatar, E. (2010). Opinions of Students' Parents About Performance Task in Science and Technology Class. *Necatibey Faculty of Education, Electronic Journal of Science and Mathematics Education* (EFMED), *4* (1), 108-122.

Uzun, S., Bütüner Ö. S., & Yiğit, N. (2010). 1999-2007 TIMSS Fen Bilimleri ve Matematik Sonuçlarının Karşılaştırılması: Sınavda En Başarılı İlk Beş Ülke-Türkiye Örneği. *İlköğretim Online*, *9* (3), 1174-1188. [Online] http://ilkogretim-online.org.tr/, retrieved on 10/03/2013.

Van Voorhis, F. L. (2001). Interactive Science Homework: An Experiment İn Home And School Connections. *NASSP Bulletin, 85*, 20–32.

Van Voorhis, F. L. (2004). Reflecting On The Homework Ritual: Assignments and Designs. *Theory Into Practice*, *43*, 205–211.

Van Voorhis, F. L. (2011). Costs and benefits of family involvement in homework. *Journal of Advanced Academics*, 22(2), 220-249

Tam, V. C., & Chan, R. M. (2009). Parental involvement in primary children's homework in Hong Kong. *The School Community Journal*, 19(2), 81-100.

Warton, P. M. (1998). Australian Mothers' Views About Responsibility For Homework in Primary School. *Research in Education*, *59*, 50–58.

Wooten, T., & Dillard-Eggers, J. (2013). An Investigation of Online Homework: Required Or Not Required? *Contemporary Issues in Education Research*, *6* (2), 189-198.

Yılmaz, F., & Tarı, I. Ö. (2010). Fen ve Teknoloji Dersinde Ev Ödevlerine Aile Katılımı: Bir Olgubilim Çalışması. 9. Ulusal Sınıf Öğretmenliği Eğitimi Sempozyumu, Elazığ, 287-292.

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