Examining the motivations of primary school fourth grade students with regard to homework

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Suggested Citation:

Received from April 21, 2019; revised from July 18, 2019; accepted from November 1, 2019.
Selection and peer-review under responsibility of Assoc. Prof. Dr. Deniz Ozcan, Ondokuz Mayis University, Turkey.
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Abstract

In this study, the aim was to determine the motivation levels of primary school fourth grade students with regard to their homework, and whether their motivations differ in terms of some variables. The sample used in the study, conducted using a survey method, consists of 256 students studying in schools in the province of Erzurum of the Republic of Turkey. The data of the study were collected using a ‘Homework Motivation Scale’. Data were analysed using descriptive statistical techniques, a t-test and a one-way analysis of variance test. It was seen that the internal and external motivations of the students differed with regard to intrinsic motivation. In addition, it was seen that students’ autonomous motivations differed with regard to those who have someone who helps them with homework. Students’ intrinsic motivation is higher than their external motivation. It is thought that this will contribute to students completing their homework successfully.

Keywords: Homework, motivation, primary school.

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1. Introduction

Education is a complex process involving different types of variables. Although there is a lot of knowledge, attitudes and behaviours that the students want to gain as background to this process, there are some clearly-stated main objectives. One of the main objectives of educational activities is to achieve the academic success. To this end, curriculums are organised and the educational process is planned. To improve academic success, teachers use many different methods. One of these is homework. ‘Homework’ is generally defined as schoolwork brought home for completion (Corno, 1996). Whether homework increases academic achievement is a controversial issue. While some studies assert that homework increases success, the others do not or only increase it in some class levels.

Cooper, Robinson and Patall (2006) stated that the homework was effective in increasing success, provided that it did not take too much time, and they mentioned the 10-minute rule. It was stated that, as the student's grade level increases, a 10-minute increase can be made, and even in the top grades, a 2-hour homework time should not be exceeded. Eren and Henderson (2011) concluded that in their research, homework increased success, especially in mathematics lesson and in another science group, but did not have a significant effect on other lessons. Especially, in studies conducted at the primary level, similar and different results were obtained from the studies conducted at other levels. Farrow, Tymms and Henderson (1999) showed that if homework is given once a month from each basic course in primary schools, it increases the success of the coursework.

Different studies appear contradictory about whether or not homework increases academic success. These contradictions may be due to the examination of the homework process only in relation to academic success. It would be useful to examine the students who are obliged to do their homework in terms of the affective aspects, and not only their cognitive aspects. Examining students' perceptions, attitudes and motivations with regard to homework will be a guide in terms of regulations to be made with regard to this process. Being aware of the motivations of the students who are assigned homework and developing measures in this regard will contribute to the development of terminal behaviour.

Being motivated means acting to do something (Ryan & Deci, 2000). Therefore, the motivation is seen as the element that initiates and activates all kinds of actions on the part of an individual. In this sense, motivation can be seen as a preliminary step in order to carry out educational activities in a healthy way, and to obtain all kinds of desired outputs. This is because motivation, which is the power that allows the organism to achieve a target and provides energy, plays an important role in the stimulating the organism's behaviour and learning (Yuksel, 2011).

Motivation is seen as one of the key factors that determines the direction, severity, determination and speed when it comes to achieving desired goals (Akbaba, 2006). In educational environments, the majority of learning difficulties and unwanted behaviours are related to a lack of motivation. This is because the efforts on the part of the students who are not motivated to learn are inadequate.

There are many theories with regard to motivation. One of the most-widely accepted of such theories is self-determination theory. Although this theory is not completely a motivation theory, the classification of the theory in terms of motivation has been taken into consideration in many studies.

In the case of self-determination theory, motivation is divided into internal and external motivation. Intrinsic motivation refers to one's desire for appreciation, challenge and entertainment. External influences, pressures, rewards and penalties are included in the concept of external motivation (Ergin & Karataş, 2018). An example of intrinsic motivation is behaviour leading to taking time for a variety of hobbies, participating in various competitions or voluntarily participating in activities and projects (Calp, 2013). Intrinsic motivation can cause people to cope with difficulties, to create order from chaos, to regulate their driving forces or to engage in interesting activities (Deci & Ryan, 1985).
When the literature is examined, it can be seen that there have been many studies examining the motivation of students with regard to school, teachers or a specific course (Noels, 2001; Yaman & Dede, 2007; Yildiz & Kilic, 2018). Regarding homework, it can be seen that in many studies, students' attitudes towards homework has been examined (Cooper, Lindsay, Nye & Greathouse, 1998; Yucel, 2004).

Cooper, Lindsay, Nye and Greathouse (1998) stated that a large amount of homework negatively affects students' attitudes in some classes. In addition, in some studies, the opinions of students, parents or teachers about homework were examined (Ozer & Ocal, 2013; Duru & Cogmen, 2017; Gedik, Altintas & Kaya, 2018; Matei & Ciasca, 2015). In the study by Yildiz and Kilic (2019), it was also revealed that giving homework to students frequently causes students to be reluctant, not wanting to do homework, having difficulty doing homework, and not wanting to do it alone. In the literature, there have been many studies examining the attitudes and behaviours of students towards homework. However, only a limited number of studies examining students' motivation for homework were found (Hong, Milgram & Rowell, 2004). Therefore, it is thought that the results obtained in this study will add to the literature.

1.1. Purpose

The aim of this study is to examine the motivation levels of primary school fourth grade students about homework in terms of self-determination theory. The aim is also to determine whether their motivations differ in terms of some variables.

1.2. Research questions

The research questions are as follows:

1. What is the level of motivation of primary school fourth grade students with regard to homework?
2. Do the intrinsic and extrinsic motivations with regard to homework of primary school fourth grade students differ?
3. Does the motivation of primary school students towards homework differ
   • in terms of gender,
   • in terms of whether or not they have their own room,
   • in terms of whether or not there is someone who helps with homework,
   • according to the amount of homework
   • according to the frequency of homework given by the teacher?

2. Method

2.1. Research design

This study, which aims to determine the motivation of primary school students with regard to homework assignments, was carried out using a survey model. The aim of the survey is to consider the situation related to the research subject under consideration and to interpret the situation in terms of the individuals in the sample (Buyukozturk, Kilic Cakmak, Akgun, Karadeniz & Demirel, 2016; Fraenkel & Wallen, 2006;).

2.2. Participants

The study group consisted of 256 primary school fourth grade students from different districts of the Erzurum Province in Turkey. The students were selected from four different schools by a simple random sampling method (Cohen, Manion & Morrison, 2007). The students consisted of 122 girls and 134 boys.
2.3. Data collection

The ‘Homework Motivation Scale’, which is a valid and reliable instrument developed by Duru and Cogmen (2016), was used as the data collection tool. The internal consistency coefficient of the scale was 0.82 for the autonomy dimension and 0.62 for the control sub-dimension. As a variable, the students were asked about their gender, whether or not they had their own room in which to study, whether or not they received help with their homework from someone, the frequency of their assignments, and the amount of homework given by their teachers.

2.4. Data analysis

In the analysis of the data, firstly general information about the data was obtained by using descriptive statistical techniques and assumptions, such as the distribution, normality etc. of the data were examined. Then, a t-test and a one-way analysis of variance (ANOVA) test were used to compare the data and determine the differences. In this context, descriptive statistical techniques were used to find answers to the first research question. Paired samples t-test was used to find answers to the second research question, an independent samples t-test and a one-way ANOVA test were used to find answers to the sub-questions of the third research question.

3. Findings

In this section, the research findings were presented as answers to each research question.

3.1. Research question 1

What is the level of motivation of primary school 4th grade students with regard to homework?

The motivation of the students with regard to homework was analysed by using descriptive statistical techniques. Both the mean scores and the mean scores of the sub-dimensions are presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Motivation levels of students with regard to homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation type</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
</tr>
<tr>
<td>Extrinsic motivation</td>
</tr>
<tr>
<td>General average</td>
</tr>
</tbody>
</table>

As shown in Table 1, the students’ extrinsic motivation was moderate, while their intrinsic motivation was high. In addition, the general average was high. The classification of levelling has been made considering the categories of similar scales.

3.2. Research question 2

Do the intrinsic and extrinsic motivations with regard to homework of primary school fourth grade students differ?

In order to determine whether students' internal (autonomous) or external (control-centred) motivations differ, the paired samples t-test results are presented in Table 2.
Table 2. Comparison of internal and external motivation scores of students

<table>
<thead>
<tr>
<th>Variable</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Motivation</td>
<td>2.86</td>
<td>0.56</td>
<td>-23.41</td>
<td>255</td>
<td>0.00</td>
</tr>
<tr>
<td>External Motivation</td>
<td>1.78</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 2, the intrinsic and extrinsic motivation scores of students differed meaningfully.

3.3. Research question 3

Does the motivation of the primary school students towards homework differ

a. in terms of gender,  

b. in terms of whether or not they have their own room,  

c. in terms of whether or not there is someone who helps with homework,  

d. in terms of the amount  

e. in terms of frequency of homework given by the teacher?

The independent samples t-test results are presented in Table 3 to determine whether or not the motivation of the students with regard to homework varies in terms of gender.

Table 3. Comparison of students' motivation in terms of gender

<table>
<thead>
<tr>
<th>Gender (Group)</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
</table>
| Control-centred (external)  
Female                  | 122 | 1.66         | .45 | -3.49| 254 | 0.001|
| Male                    | 134 | 1.90         | .63 |      |     |     |
| Autonomous (internal)   
Female                  | 122 | 2.89         | .50 | 1.08 | 254 | 0.280|
| Male                    | 134 | 2.83         | .44 |      |     |     |
| General average         
Female                  | 122 | 2.48         | .37 | -.783| 254 | 0.434|
| Male                    | 134 | 2.52         | .37 |      |     |     |

As shown in Table 3, the control-centred (external) motivation of students with regard to homework differs with male students being more highly motivated. The autonomous (internal) motivation and the general motivation average of the students don’t differ in terms of gender.

The independent samples t-test results are presented in Table 4 in order to determine whether the motivation of the students with regard to their homework is differentiated according to whether or not they have a study room.

Table 4. Comparison of students' motivations according to the availability of study rooms

<table>
<thead>
<tr>
<th>Study room (Group)</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
</table>
| Control-centred (external)  
Available            | 205 | 1.75         | .55 | -1.87| 254 | 0.062|
| Absent              | 51  | 1.92         | .59 |      |     |     |
| Autonomous (internal) 
Available            | 205 | 2.86         | .48 | 0.232| 254 | 0.817|
| Absent              | 51  | 2.84         | .43 |      |     |     |
| General average     
Available            | 205 | 2.49         | .37 | -0.746| 254 | 0.456|
| Absent              | 51  | 2.53         | .36 |      |     |     |

When Table 4 is examined, it can be seen that whether or not students have a study room does not cause any significant difference in their motivation with regard to homework in any dimension.

The independent samples t-test results are presented in Table 5 to determine whether the motivation levels differ according to the presence or absence of individuals who help students with their homework.
Table 5. Comparison of motivation of students according to whether or not someone helps with their homework

<table>
<thead>
<tr>
<th>Someone to help</th>
<th>Group</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-centred (external)</td>
<td>Available</td>
<td>203</td>
<td>1.77</td>
<td>.57</td>
<td>−0.756</td>
<td>254</td>
<td>0.451</td>
</tr>
<tr>
<td></td>
<td>Absent</td>
<td>53</td>
<td>1.84</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous (internal)</td>
<td>Available</td>
<td>203</td>
<td>2.89</td>
<td>.45</td>
<td>1.994</td>
<td>254</td>
<td>0.047</td>
</tr>
<tr>
<td></td>
<td>Absent</td>
<td>53</td>
<td>2.74</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General average</td>
<td>Available</td>
<td>203</td>
<td>2.52</td>
<td>.36</td>
<td>1.309</td>
<td>254</td>
<td>0.192</td>
</tr>
<tr>
<td></td>
<td>Absent</td>
<td>53</td>
<td>2.44</td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen in Table 5, the autonomous (internal) motivations of the students differ in terms of those who have help with their homework being more highly motivated. The control centred (external) motivation and general motivation averages of students do not differ as to whether or not they have someone to help with their homework.

The results of the one-way ANOVA test to determine whether or not the motivation of the students with regard to homework differ in terms of the amount of homework given by their teachers are presented in Table 6.

Table 6. Comparison of students’ motivations according to the amount of homework given by teachers

<table>
<thead>
<tr>
<th>Amount of Homework</th>
<th>Motivation</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-centred (External)</td>
<td>Between groups</td>
<td>1.671</td>
<td>2</td>
<td>0.836</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>80.298</td>
<td>253</td>
<td>0.317</td>
<td>2.633</td>
<td>0.074</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>81.969</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous (Internal)</td>
<td>Between groups</td>
<td>0.445</td>
<td>2</td>
<td>0.223</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>57.632</td>
<td>253</td>
<td>0.228</td>
<td>0.977</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>58.077</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Average</td>
<td>Between groups</td>
<td>0.13</td>
<td>2</td>
<td>0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>35.519</td>
<td>253</td>
<td>0.140</td>
<td>0.045</td>
<td>0.956</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>35.532</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen in Table 6, students' motivations do not differ in terms of the amount of homework in any sub-dimension.

The results of the one-way ANOVA test in order to determine whether or not the motivation of the students with regard to homework differed in terms of the frequency of teachers' assignments are presented in Table 7.

Table 7. Comparison of students’ motivations according to the frequency of teachers’ giving homework

<table>
<thead>
<tr>
<th>Frequency of Homework</th>
<th>Motivation</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-centred (External)</td>
<td>Between groups</td>
<td>1.609</td>
<td>3</td>
<td>0.536</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>80.360</td>
<td>252</td>
<td>0.319</td>
<td>1.682</td>
<td>0.171</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>81.969</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous (Internal)</td>
<td>Between groups</td>
<td>0.966</td>
<td>3</td>
<td>0.322</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>57.111</td>
<td>252</td>
<td>0.227</td>
<td>1.421</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>58.077</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General average</td>
<td>Between groups</td>
<td>0.197</td>
<td>3</td>
<td>0.066</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>35.334</td>
<td>252</td>
<td>0.140</td>
<td>0.469</td>
<td>0.704</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>35.532</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As can be seen in Table 7, students' intrinsic and extrinsic motivations do not differ in terms of the frequency of homework given by teachers. Similarly, the general average of motivation scores with regard to homework doesn’t differentiate in terms of frequency of homework given by teachers.

4. Conclusions and recommendations

Motivation is the energy that performs all kinds of actions that take place in the school environment. Martin (2001) defines motivation as a force for students to achieve, work hard and learn at school. Motivation of students for all kinds of activities, whether educational or not, can differ. In the literature, it can be seen that motivation is generally examined with regard to courses or a specific subject. Students are highly motivated when it comes to learning science (Yenice, Saydam & Telli, 2012). Turkish language word learning motivation is at a medium level (Kusdemir, 2019). In mathematics courses, intrinsic motivation especially was found to be quite high compared to extrinsic motivation (Dede & Argun, 2004). In the results of this study, it was observed that the internal motivation of the students was higher than the extrinsic motivation. This is a coveted situation, and the results of this study support the studies in the literature. This is because it is seen that developing a positive attitude towards lessons and increasing their motivation depends on internalizing the value of homework and believing it to be beneficial (Gedik, Altintas & Kaya, 2011). This result shows that students are more affected and motivated by the internal factors with regard to the given homework. It is important that this occurs because intrinsic motivation is critical for students performing a task. It is not possible to compensate for a lack of intrinsic motivation through actions that provide extrinsic motivation (Lepper, Corpus & Iyengar, 2005).

When the internal and external motivations of the students were examined in terms of gender, it was seen that their external motivations differed, with male students being more highly motivated. Similarly, Kilpatrick, Hebert and Bartholomew (2005) examined the motivations of students with regard to physical activities. The motivation of male students was found to be higher in various dimensions. This is a condition that needs to be investigated.

It was observed that having someone who helped with homework influenced intrinsic motivation. In a study conducted by Brooks (1926), it was found that students who were assisted by their parents were better at doing their homework (Kapikiran & Kiran, 1999). Therefore, this information supports the results obtained from the study.

When students return home from school, teachers give them homework to reinforce the knowledge learned, and to prepare for the next day’s lessons or to acquire new knowledge. The quality and quantity of homework varies from teacher to teacher (Kapikiran & Kiran, 1999). In this study, whether some variables related to teachers differentiate students' motivation was also investigated. It was concluded that the amount of homework given by teachers and the frequency of assignments did not make a significant difference to student motivation.

Some suggestions can be made to researchers who wish to conduct research on this subject:

- The motivation with regard to homework assignments of students at different grade levels can be investigated.
- Whether motivation varies in terms of different demographic or school environment variables can be examined.
- In order to understand the affective effects of homework, various affective characteristics can be considered together.
References


