Effects of Homework on Student Academic Achievement: A Descriptive Study

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Abstract

Homework is defined as a work allocated by the teacher to be accomplished by the student outside of the regular school day. The purpose of this study is to identify the effects of homework on the student academic achievement by conducting a descriptive study of selected and related existing literature the year 2000 to date. The gathered data failed to demonstrate that homework is an effective way to enhance the student academic achievement, in most cases.

Keywords: Homework, Academic Achievement, Formative Assignment, Teachers, Students.

1. INTRODUCTION

Sheik Zayed bin Sultan Al Nahyan once avowed that the intellectuals are the foundation of any nation’ wealth, and the growth of individuals and countries is measured by the level and extent of education they reach (Zahran, Pettaway & Waller 2016). Similarly, Alhebsi, Pettaway, and Waller (2015) claimed that the UAE foresights education as the foundation of human development and endures to reform its educational system to improve the country’s ability to compete in the speedily emerging global economy.

Unfortunately, despite all the efforts and means to fortify and enhance the Emirati educational system, many challenges in education are still confronting the teachers, the students, and their parents in the Emirati schools. For instance, the academic infrastructure of the Emirati educational system is justified as a poor and shoddy with a substandard curriculum content, insufficient assessment strategies, inadequate monitoring of educational needs, and unsatisfactory planning (Muysken & Nour 2006; Farah et al. 2015). Besides, the Emirati educational system is suffering from a lack of flexibility and dynamism of educational institutions which most of them implement education models that illustrate the modern western model at the expense of local, culturally and historically rich Arab-Muslim forms of education (Abi-Mershed 2009), and last but not least the big homework debate.

Homework is defined as a work allocated by the teacher to be accomplished by the student outside of the regular school day (Cooper 1989 in Omlin-Ruback 2009). Today, about seven hundred thousand students attend the UAE's one thousand and four hundred public schools and hundreds of private ones (Al-Suwaidi 2011). Most of these students, after spending a long day learning, practicing, testing, and playing, come back home with a bunch of homework to be practiced and accomplished before the next school day.

Statement of the Problem and Purpose of the Study

Given the continued practice of assigning homework which is considered a main source of stress for many students in their lives (Karlovac & Buell 2000) and, the continuous grievances of parents that there is overmuch much or too hard homework, or that homework is too ambiguous (loveless 2003), on the top of the continuous teacher moans about the lack of parental help to complete the homework assignment and mostly, the nonstop debate between the policymakers regarding the effect of the academic achievement, where analyses of empirical studies of homework intend to synthesize conflicting findings which bring educators no closer to a steady understanding (Omlin-Ruback 2009), the main purpose of the author in this paper is to identify the effect of homework on the student academic achievement.

Main Objective and Main Question

The main objective of the researcher is to conduct a descriptive study of selected and related existing literature or secondary Data, the year 2000 to date, published in peer-reviewed professional journals, books and reliable newspapers to answer the main
question of the study which is: What are the effects of Homework on student academic achievement? by gathering, analyzing and enlightening the findings of the major effects (either positive, negative or negligible) of the homework on the student academic achievement.

Rationale of the Study

The findings of this paper are intended to promote a grander understanding of the effect of homework on the student academic achievement as well, it will contribute to the literature studying the same topic. Moreover, this study will inform the policymakers, curriculum developers and teachers in the Emirati classrooms about the advantages, disadvantages, and the principles of a homework and it will help them developing a new perspective toward the question of the homework’s value and its effect on the student academic achievement.

2. Literature Search Procedures

No matter how systematic the procedures may be, no search of the literature can retrieve all studies relating homework to achievement. In this study, the researcher tends to search for a purposeful sample made of books and articles published in peer-reviewed professional journals and reliable newspapers, related to homework and achievement to meet the purpose of the study, by following a qualitative method and a descriptive design. The ERIC, PsycINFO, OECD, WorldCat, BUiD electronic library and Google Scholar along with other managers’ databases cataloged between the year 2000 to date are used. The keywords “homework” and “achievement” are used in these searches along with “homework effect” and “student achievement”.

Once retrieved, the title, abstract, and the extracted article are read. If the retrieved data and the conclusion are relevant to the relationship between homework and achievement, the article will be included in the study. If not, the article will be excluded as it does not meet the selection criteria. The selected data of this qualitative descriptive study will be presented and organized in a summarized, categorized and logical means. Moreover, the reference section of each selected article is examined to determine if any of the cited work has titles that might be related or important to the study.

3. Literature Synthesis

Homework can be described as any task a student is given by the school teacher to be completed out at home or throughout non-school hours (Cooper 1989). Historically, it was implemented upon the American culture among which a limited number of students were able to follow their higher education as many of them were in need to commit significant amount of time to chores and farm work. The students’ incapability to study and finish their allocated assignments, which were mainly based on rote memorization, like memorizing a whole script at home, contributed to students quitting school at early age. Moreover, it was not mandatory for the students to attend school at that period, and if there is not enough time for any pupil to accomplish the assigned homework in the afternoons and evenings, then s/he was free to abandon school.

In general, the homework envisages many purposes, either instructional, either to meet the teachers or the administrators’ purposes. The communal instructional purpose of homework, besides improving instruction, is to give the pupil a chance to practice or review material that has been taught by the teacher in-class (Becker & Epstein 1982). However, the noninstructional purpose of a homework is to increase communication among parent and child (Acock & Demo 1994); to meet instructions from school bureaucrats (Hoover-Dempsey, Bassler & Burrow 1995); and to punish or penalize students in definite cases (Epstein & Van Voorhis 2001). Lastly, homework can inform parents about teaching and learning happening in school (Corno 1996). As well, it helps them highlighting any learning disability their child may have.

The effectiveness of homework which is labeled, defined, and categorized as a formative assignment, on the students’ academic growth and achievement has been a debatable issue for a long period of time. The educational community and the public as a whole have always had cyclical views about homework (Cooper, Robinson & Patall 2006). Advocates assert that homework enhances the academic task and reassures self-discipline and good study rehearses, especially if it is purposeful, discussed in class, promptly corrected with essential and clear feedback, and lastly, if it is graded by the teacher (Keane & Heinz 2019). In opposite, Adversaries argue that homework results in overexposure to academics and constraint time to leisure and activities. Repeatedly, completely opposite points of view have been argued, and the tendency to describe homework as either all worthy and valuable or all worthless and valueless is at the center of those arguments (Gill & Schlossman 2000).

Research on the Relationship between Homework and Achievement

Despite all the researches that have been conducted around the homework over a long period of time, the role that it plays in student achievement is, at best, only partially understood. The following descriptive study will highlight the homework’s effect by collecting; categorizing and synthesizing; and analyzing secondary data related to this topic, and retrieved from books and professional peer-reviewed journals to explore the latest researches findings, and to somehow understand the ambiguous relationship between homework and the student achievement that has been questioned for many years.
a) The student’s Academic Performance: Case For and Against Homework

Does homework improve academic achievement? A comprehensive and rigorous synthesis of research about homework and academic achievement conducted by Cooper, Robinson and, Patall (2006) analyzed many research studies related to this topic, between 1987 and 2003. In the findings of their meta-analysis, the researchers found small evidence that homework provides academic benefit in elementary school and they claimed that homework is not associated with a better academic achievement when measured by standardized tests results or grades, in the elementary level. Besides, findings revealed a positive relationship between the time spent on homework and the academic achievement for the high schoolers and to a smaller degree, in middle school where homework affected both standardized tests and grades given that students who were required to complete homework outperformed sixty nine percent of students who didn’t have any assignment. These findings are supported by the Kalenkoski and Pabilonia (2017) who asserted in their meta-analysis research that take-home assignments positively effect and improve the high schoolers academic achievement.

Despite his latest conclusions, Cooper stated that even homework is beneficial and has a positive effect on the student achievement, there can be too much of a good thing and he added that there is a constraint to how much students can profit from the home study. He established an oft-cited rule of thumb that requests students to do no more than ten minutes per evening, per grade level, starting from ten minutes in grade one up to a maximum of about one hundred and twenty minutes in high school (2007 in Marzano & Pickering 2007). Both the National Education Association and National Parent Teacher Association encourage that constraint. Yet, other data advocates that many students are taking home much more homework than they can afford. For instance, Pressman et al. (2015) investigated the ten-minutes rule among more than one thousand and one hundred students, and found that elementary-school kids were receiving up to three times as much homework as recommended and concluded that as homework load increases, so does family stress.

Within the same range of studies on middle-schoolers, a recent one conducted by Fernández-Alonso, Suárez-Álvarez, and Muñiz (2015) along seven thousand, seven hundred and twenty five Spanish teenagers, with a mean age of thirteen, emphasized that students who were regularly assigned math and science homework scored higher on standardized tests. Though, when these students reported having more than one hundred minutes of homework per day, scores declined. Similarly, Vazsonyi, and Pickering (2003) studied eight hundred and nine adolescents in American high schools and found a higher correlation between time spent on homework and poor conduct. Last but not least, research from the Organization of Economic Cooperation and Development (2004) supported these findings and reported that students in Finland and Japan are assigned less homework but still outperform U.S. students who are assigned to more homework, on standardized assessments. Therefore, there is little relationship between the amount of homework students do and their standardized tests scores.

b) Homework’s Effect on the Student’s Non-Academic Performance

Although this descriptive study is conducted to clarify the homework effect on the student academic achievement. Yet, it would be beneficial to list some of its non-academic effects on the student as a whole, as homework can affect the student in a multidimensional way. Bennett and Kalish (2006) suggest that homework, due to its sedentary nature, is a source of blame for the rise in obesity, sleeplessness, and depression in American children. Similarly, Parker (2014) reported that high-achieving high schoolers say that the amount of homework they have to complete leads to sleep deprivation and other health problems such as headaches, exhaustion, weight loss, and stomach problems. Likewise, Fratello (2015) reported in his Stanford Survey of Adolescent School Experiences that forty-three percent of students asserted that homework was their utmost source of stress, and eighty-two percent agreed that they were frequently or continuously stressed by schoolwork.

Moreover, a study published by AdCouncil, regarding cheating in schools, reported that extreme homework leads to cheating where findings stated that ninety percent of middle schoolers and sixty-seven percent of high schoolers admit to copying other’s homework (2019).

Lastly, Lutz and, Jayaram (2015) affirmed in their study that homework increases social inequality because it can aid to further advantaging the students who already sustain certain privilege in the school while further disadvantaging the students who may already be in a relegated position. Within the same context, Jiang, Ekono, and Skinner (2016) declared that forty-one percent of American pupils live in low-income families who don’t have enough access to the resources needed to complete homework, such as: a computer and internet connection; utensils like pens and papers; a quiet work plot to study; and/or an available parent to help in accomplishing their homework at home. Besides, those students are somehow obliged to work after school and on weekends to be able to survive or support financially their parents. More, they are sometimes asked to supervise their younger siblings, considering minimal time for homework.
In contrary to all the findings listed above, Bempechat (2004) supports homework and declares that homework develops students’ motivation and study skills. In his report, he claimed that parents and teachers of middle schoolers admitted that homework improved students’ study skills and personal responsibility skills. Analogously, Cooper (2006) kept endorsing homework for elementary students, despite his findings that homework has smaller effect at lower grade levels, as he believes that homework for young pupils helps in developing good study habits, fosters positive attitudes toward school, and communicates to students the idea that learning takes place at home as at school. Likewise, Ramdass and Zimmerman (2011) stated that scholars who involve in self-regulatory processes while accomplishing homework such as goal-setting, time management, and remaining focused for a significant period of time are usually more motivated and are higher achievers than students who do not follow these processes.

c) The Role of Teachers and Parent Involvement

The homework practice starts with teachers who select the themes and content of assignments to aid students to meet particular learning goals. Therefore, the role of teachers is not only allocating homework but also designing homework. To do so, teachers are required to consider the purpose, format, required timing to be achieved and, other elements of homework that will help the students to be involved and succeed without being overwhelmed. Homework must reflect teachers’ knowledge of the curriculum and their understanding of the skills, abilities, and needs of their students, along with the characteristics and situations of their students’ families (Epstein 2001). However, Bennett and Kalish (2006) asserted that teachers are not well trained in how to assign and design a homework as they get little instruction in homework during their training or teaching experience. Likewise, Galloway, Conner, and Pope (2013) argued that teachers must be well knowledgeable and clued-up about homework and its dimensions, and along with the school administrators, they must agree on clear goals when it comes to homework and parents and students should be present on this discussion. Therefore, the authors stated that a broader conversation within the school community must be held, regularly, to inform the teachers about the purpose and how to design a homework, and to clarify the questions around its value and significance.

In addition to the teacher’s role, many studies reviewed the parental involvement and one of the articles revealed that parental involvement is one element of homework design that incites students to complete their assignments with higher quality work (Epstein & Van Voorhis 2001). Moreover, researchers stated that homework can help parents finding out the presence of any learning disability their children may have, while they are practicing their homework. Dissimilar, other studies have narrated negligible positive effects or even negative effects for parental involvement where numerous parents testimony that they feel unqualified to help their children with homework and that their efforts to help often cause stress as they don’t receive clear guidelines or instructions from teachers in how they can aid their children in accomplishing their homework (Balli, Demo & Wedman 1998).

4. Synthesis of the Effect of Homework on the Student Achievement

A comprehensive summarization is generated by the author from the presentation of the informational contents of data related to homework and student academic and non-academic achievement. The researcher is presenting in the following table a synthesis of the positive and negative effects of homework on the student.

<table>
<thead>
<tr>
<th>ACADEMIC ACHIEVEMENT</th>
<th>Positive effect of the homework</th>
<th>Negative effect of the homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforces what students were taught in class.</td>
<td>Little to no evidence to suggest that homework has an effect on students’ academic growth and achievement in elementary school.</td>
<td></td>
</tr>
<tr>
<td>Strong evidence that limited homework has a positive impact on students’ academic achievement in middle and secondary schools.</td>
<td>Too much homework can be harmful and counterproductive and lead to lower test scores.</td>
<td></td>
</tr>
<tr>
<td>Improves the achievement and leads to better GPAs and higher probability of college attendance for high schoolers.</td>
<td>A one-size-fits all homework pack can have negative influences on students’ attitudes towards school and future pursuits towards learning therefore it leads to dislike for school.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-ACADEMIC ACHIEVEMENT</th>
<th>Builds character</th>
<th>Disadvantages low-Income students and increases social inequality.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaches good study habits.</td>
<td>Leads to children’s frustration and exhaustion</td>
<td></td>
</tr>
<tr>
<td>Helps students to develop skills such as:</td>
<td>Doesn’t leave anytime to learn other personal responsibilities therefore, lack of time for creative</td>
<td></td>
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</tbody>
</table>

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5. DISCUSSION OF THE MAIN FINDINGS

While mining and searching for the effect of homework on student academic achievement, the author found thousands of electronic studies, articles, and books written around the effects of homework on student academic achievement. No descriptive study can gather all that is published, found, discussed and argued. Though, from the chosen sample of the selected articles and books, the writer concludes that the homework affects the student in a multidimensional way, positively and negatively, depending on its quality and quantity, and it is difficult to focus and discuss one effect (like academic achievement) without involving or revealing further consequences (like sleep deprivation) or outcomes (like isolation).

Consequently, aside the inputs, views and believes, whether supporting or opposing, of numerous psychologists, educators, school principals, professors, parents and even medical doctors in the homework matter, an inference can be drawn from this study and it will be noteworthy to be cautious and comprehend as educational stakeholder or parent, that excessive amount of homework is stressful and harmful to kids, both physically and mentally and in case the homework shall be given, this assignment should be designed and prepared in a proficient and theory-based manner in order to benefit the student.

Numerous articles highlight the prominent issue and several recommendations are suggested by educational experts to inform and enlighten the method that homework should be conducted and delivered. Several counsels or homework alternatives are listed by the author, in the conclusion section, to aid the teachers and the administrators, especially in the UAE context, to enhance, through the homework, the student academic achievement while considering his/her mental, phycological and, physical aspects as well as his/her familial and social contexts.

6. CONCLUSION

From all of the above, the author concludes that research fails to demonstrate, in most cases, that homework is an effective way to enhance the student academic achievement, and if it is justified that it is beneficial to assign, the teacher should be highly vigilant and should take into consideration many components to not affect the students’ psychological, mental, physical and familial aspects. Therefore, the latest researchers and educational stakeholders are willing to adapt a new model by shifting from the traditional homework practice where students simply practice skills and learn concepts at home into a new model. Thus, they highly recommend the Home Learning approach where the students are self-directed learners, by being involved and engaged in activities of their choices, and which are home appropriate. Kohn (2006) in his recommendations urges teachers to engage students in determining what homework and how much, they should do.

Latest studies related to Home Learning offer robust evidence of a positive impact of the differentiated homework strategy on students’ engagement with homework. As well, they reveal that when given a choice, students are able to select and efficaciously accomplish appropriate tasks to their level (Keane & Heinz 2019). Via this practice, or through the home differentiated tasks such as performing an experiment at home; doing crossword puzzles; building sculptures with interlocking plastic bricks; developing a passion or science project; watching interesting and age appropriate television shows like National Geographic documentaries; or simply reading one of their favorite books or topics, the students will be given a feel of confidence, enablement, and independence in their learning (Vatterott 2017) as well they will change their attitude from being negative to positive towards homework (Keane & Heinz 2019).
Recently, few schools in Abu Dhabi, India, Canada, and the United States shifted to home learning practice (Strauss 2017). Results of this new followed procedure start to demonstrate a positive effect of home learning on the student achievement and their love to their schools. For instance, a study by the University of Michigan states that reading for pleasure, but not homework, was highly associated with higher scores on all achievement tests for children up to twelve years old (Hofferth & Sandberg 2001). In the United Arab Emirates, precisely in Abu Dhabi and Dubai, all elementary schoolers of two American schools are endorsing this practice that substitutes traditional homework with 30 minutes of reading, every single night, where pupils get to choose their reading material (2018).

Is this new policy really effective on the student achievement? Especially that earlier studies suggest that choice steadily increases interest, motivation, and engagement (Kohn 1993). The answer is certainly to be revealed by the educational researchers in the next decade. Therefore, related and additional studies, regarding switching from homework to home learning and the impact on the student achievement, are highly recommended to be conducted in the educational field, specially by the education stakeholders in the United Arab Emirates which is considered a new context, to formulate a well-founded conclusion of the effect of home-learning on the student academic achievement.

7. RECOMMENDATIONS

As mentioned above, education stakeholders, teachers, and parents have become progressively apprehensive about the homework role, and the stress it creates for all-levels students. Hence, they start accommodating new models where they appear to balance between the effective learning brain, the pleased playtime, and sleep quality to guarantee the brain efficient performance along with a mental and physical health of the students (Vatterott 2018).

Though, by conducting the descriptive study, the author realized that shifting to a new model in assigning homework, the teacher can significantly affect the student engagement and achievement. Therefore, the following table presents few recommendations allocated by the author, based on the latest studies and literature, to be implemented by the principals and the teachers, specifically in the United Arab Emirates, for the student mental and educational benefits.

<table>
<thead>
<tr>
<th>WHO?</th>
<th>WHAT TO DO?</th>
<th>HOW TO DO?</th>
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<tbody>
<tr>
<td>PRINCIPALS</td>
<td>• Reconsider standardized homework policies.</td>
<td>• Set a policy where teachers are required to give a certain number of minutes of homework, depending on the student’s grade and needs (Differentiation).</td>
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<td></td>
<td>• Change the default state from an expectation that homework will be assigned to an expectation that homework will not be assigned (Kohn 2006).</td>
<td>• Assign homework only when it is justified that it is beneficial (Kohn 2006).</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>• Reflect on homework</td>
<td>While developing the homework assignment, the teacher has to ask herself/himself: What philosophy of teaching and what theory of learning lie behind the assignment?</td>
</tr>
<tr>
<td></td>
<td>• Assign only what they design and teach in class.</td>
<td>If justified, teachers should create numerous assignments to fit different interests and capabilities. As well, they are required to design assignments based on what they teach in class and not use prefabricated or online worksheets.</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>• Must give a constructive feedback on the returned homework.</td>
<td>Teachers are required to ask and discuss what the students enjoyed, learned, disliked, stressed out, struggled in... etc. about the homework.</td>
</tr>
<tr>
<td>INVOLVING THE STUDENT</td>
<td>• Ask the students’ opinions/inferences.</td>
<td>Ask the students what they think of homework? What they suspect? and solicit their suggestions. Ask them: How does homework affect their appeal to learn? How does it affect their lives and their families?</td>
</tr>
<tr>
<td>INVOLVING THE STUDENT</td>
<td>• Involve students in deciding what homework, and how much, they should do (Kohn 2006).</td>
<td>Ask the students about their preferences: performing a science experiment at home, doing crossword puzzles with a parent, watching appropriate television shows, or reading and exploring a topic of their interest (Kohn 2006).</td>
</tr>
</tbody>
</table>

REFERENCES


- Cooper, H. (2016). *Yes, teachers should give homework – the benefits are many*. The News & Observer.


