

An Evaluation of the Mediating Function of Homework

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Abstract. Homework is a common way used by teachers to evaluate their students' learning consequences. However, there is little evaluation of the homework's mediating functions in education. The practical functions of homework in increasing students' learning performance are hardly mentioned. It shows that the value of homework is commonly accepted by educators even though the process of doing homework is time-consuming. However, the practical efficiency of homework for students' learning performance is worthy to be discussed further. This article will focus on the practical function and consequences of homework in increasing students' learning performance. The major methodology used by this article is to explore many academic articles and conclude major thoughts of them as the source of evaluating the mediating function of homework. As a result, homework plays an important role in reaching teachers' goals and enhancing students' academic performance. However, if homework cannot be used efficiently, it will lose its functions. Therefore, it is necessary to research what kinds of factors influence the effectiveness of homework and help teachers to reach their goal of enhancing students' academic performance. The results of this project contribute to supplementing the practical roles of homework in light of the previous knowledge. This will increase the confidentiality and practical roles of homework in reaching teachers' goal of increasing students' learning performance.

Keywords: Homework, Learning Performance, Practical Role, Mediating Function.

1. Introduction

Homework is a word that may cause students' unhappy emotions. However, homework has its educational meaning. Historically, homework played an essential role in education because teachers want to increase students' learning outcomes and academic performance by assigning homework. Unfortunately, homework becomes controversial due to its practical functions played among students. Some people think that homework is important to increase students' academic performance, but others think that homework occupies much non-school time of students and does not play an effective role in enhancing students' academic performance. This article will provide a literature review to discuss and explore the mediating role of homework in enhancing students' academic performance and achieving the purpose of teachers. Homework-related behaviors and performance of students, like the extent of students' efforts in completing homework, frequency of completing homework, timeliness, presentation, accuracy, and completion rate, would influence the quality of homework. Overall, the mediating role of homework depends on students that they feel it interesting and useful to do homework and make efforts in doing homework.

2. Introduction to homework

2.1. The concept and types of homework

The concept of "homework" was first applied to physical work, referring to the tasks that workers had to complete after work and outside the factory, and in the 18th century, the German scholar Reichenkampf was the first to extend "homework" from physical work to mental work, forming concepts such as "book work" and "mental work". "In educational activities, students' "homework" is divided into "classroom homework" and "extra-curricular homework". In educational activities, students' "homework" is divided into two categories: "classwork" and "extra-curricular homework", of which "extra-curricular homework" is also called "homework" because it is often done at home. It is one of the organizational forms of teaching and learning (Zhang Chunxing, 1994). In his General Pedagogy, Herbart advocated that students apply and practice what they have learned after class, and

this work was extended to the home to leave more time for teaching in the school classroom, and homework thus became a continuation of in-class learning. Similar to Herbart's elaboration of homework, the Chinese Encyclopedia of Secondary School Teaching. Cooper (1989) defines homework as "tasks assigned by school teachers for students to complete during non-school hours. homework is a learning activity that students do independently outside of class time.

However, there are significant differences between China and the West in terms of the types of homework. Scholars generally agree that there are two types of homework: one is the experimentalist form of activity-based homework proposed by the American educationalist Dewey. This type of homework tends to be extended and creative, which is closer to life, cultivates students' creativity, fosters the spirit of cooperation, helps students apply and transfer their knowledge and skills, pays more attention to the process of homework completion, gives students a wide margin for thinking, and helps them synthesize and innovate their knowledge; the other type is text-based homework based on cognitivism proposed by Soviet educator Kairov. The so-called text-based homework is a kind of supplementary or consolidating course learning content assigned by teachers and taken home by students after classroom teaching. In this type of homework, reading and writing constitute the "doing" of homework by students, and homework is seen as a complementary and extended part of the curriculum to be completed at the home.

2.2. The Role of Homework

According to experimentalism, homework is a process in which students acquire life skills for the future social division of labor through a full range of physical and mental activities that involve both the hands and the brain, as well as the formation of teamwork and creativity for specific social tasks, Through various assignments, the school will become a vivid and real form of social life, not just a place to learn homework.

In line with experimentalism's focus on the social function of homework, Xiong and Shen (2008) discuss the value of activity-based homework in three ways. First, it is close to life. Learning takes place through and concerning life. When we center and organize children's lives, they can come into life, apply what they have learned, and provide the basis for subsequent learning. The second is hands-on creativity. Homework is the only reliable way to develop students' creativity, and homework allows students to create first-hand so that what they learn in class can be better applied in practice. Third, is the spirit of cooperation. Activity-based homework is usually done in groups, and each homework activity has a corresponding division of labor, and students can complete the task only through cooperation, thus helping to cultivate the spirit of cooperation among students. At the same time, students develop friendships in the process of communicating with each other, so that sociality can be further developed.

3. Literature Review

Many scholarly articles pay attention to the evaluation of homework and its role. First of all, homework purposes and tasks designed by teachers would influence the quality of homework. Bembenutty (2011) defined homework as tasks that were assigned to students by teachers and students were required to complete them during their non-school time. This definition has been commonly accepted by field researchers, and it clearly explains the relationship between teachers, students, and homework. The purpose of teachers for assigning homework is to take what has been taught in classes into practice, make preparations for taking the next classes, and engage in students' personal growth. Cooper (2001) stated that the first step of homework was that teachers were the subjects of designing the tasks of homework. The process of designing homework tasks is important to decide on clear purposes of homework. Epstein and Van Voorhis (2001) defined homework purposes as the objectives and reasons for every homework task. To reach homework purposes, teachers are expected to choose congruent tasks. Because homework purposes include teachers' design, objectives, reasons for homework tasks, and content of homework, homework purposes have

a relationship with students' academic performance. Under this circumstance, students are easy to understand the purposes of homework and would take much more effort in completing them when homework tasks are congruent with teachers' intended homework purposes. Cooper, Bembenuddy, Epstein, and Van Voorhis indicate together that homework purposes and tasks given by teachers would influence students' prone to understand homework tasks and interest in exploring homework deeply.

However, some researchers state that it would not be sufficient for teachers to increase their students' engagement and interest in homework even though homework tasks have clear purposes. Generally, homework quality also influences students' prone to understand homework tasks and the extent of making efforts in completing them. For example, Dettmers et al. (2010) indicate that the quality of homework is a strong predictor of behaviors for students to complete homework. According to Dettmers et al. (2010), homework quality can be defined as the perception of students for the selection and preparation of attractive and appropriate homework tasks. Generally, homework quality stresses course learning. If students are attracted by homework tasks, they are willing to spend time and energy on completing tasks. On the contrary, if homework tasks are not interesting for students, they would not be willing to spend time and energy doing them. Whether students feel homework tasks are interesting or not depends on selections of homework tasks and preparation for appropriate homework content. Therefore, homework quality can be considered a key element for students to understand homework tasks, and homework quality also is useful for researchers to understand students' behaviors and their academic performance.

Although researchers have researched that the homework purposes designed by teachers and the homework quality perceived by students on academic performance and homework elements are important for students to increase their prone to understand homework tasks, no study has evaluated the relationship between homework purposes, and homework quality, and homework variables. However, clearly distinguishing the importance and roles of homework purposes, homework quality, and homework variables are important for elementary schools to increase their students' academic performance and enhance the benefits of homework.

The homework is not what looks simple but complex by including a multitude of elements with a high degree. For example, Cooper (2001) promotes a homework model of including key variables of the homework process associated with all of the people included, like parents, students, and teachers. Specifically, this homework model comprises several variables that influence the homework's effectiveness. First of all, exogenous factors would influence the effectiveness of homework, like students' characteristics, and their level of grade and domain. The second kind of factor includes homework assignment features, initial factors in the classroom, home-community factors, and follow-up in the classroom. The third is homework assignment features, which included the number, degree of individuals, skills, and purposes. The final type of factors includes students' choice, social background, and the deadline for homework completion. Besides, Trautwein et al. (2006) also promote a homework model that includes six kinds of factors, such as characteristics of students, learning environment, motivation for homework, parental behaviors, achievement, and homework behaviors. In this model, the variable of learning environment would be reached because of homework's relationship with the current study objectives. The learning environment also needs to consider levels of students and class, such as length of homework, frequency of homework, homework quality, homework control, and adaptivity. These factors have a close relationship with the achievements and behaviors of students' homework. Overall, these two kinds of models concentrate on similar factors even though they have different specifications. For Cooper (2001), although he describes the purposes of homework, this model has not been taken into practice. However, Trautwein et al. (2006) have taken their views into practice by indicating the importance of homework characteristics.

All in all, homework plays an important role in reaching teachers' goals and enhancing students' academic performance. However, if homework cannot be used efficiently, it will lose its functions. Therefore, it is necessary to research what kinds of factors influence the effectiveness of homework

and help teachers to reach their goal of enhancing students' academic performance. Through a literature review, homework purposes, homework quality, and homework tasks would influence the level of enhancing students' prone to understand homework and increase their learning ability.

4. Summary and Prospects

Homework, which can improve academic performance, is supported by most studies, and the following issues should be noted to enhance academic performance through homework.

(1) individual differences in age and knowledgeability that teachers consider in assigning homework and setting homework with differences (Shih, 1999). For example, less or no homework should be assigned to lower grade students, and homework should be aimed at cultivating study habits and responsibility; for middle and high school students, the amount of homework should be increased moderately, and homework should be directly aimed at promoting mastery of learning contents and improving grades.

(2) The quality of homework should be improved by choosing the way homework is assigned and the content of homework, increasing students' interest in homework and the amount of homework they complete and improving learning outcomes, for example, by assigning less and more homework, providing reinforcement while assigning homework, linking homework to daily life, and paying attention to the difficulty of homework.

(3) Emphasize the development of children's self-regulation skills and good homework style during homework. Students should be encouraged to use self-motivation and teacher motivation, to choose a quiet, distraction-free homework environment, and to develop self-regulation skills during homework.

(4) Schools can set up interactive homework assignments to guide parents to actively participate in their children's homework process and strengthen the link between school and home.

Several problems should be noted in the study of the relationship between homework and academic achievement: First, the results of past studies are contradictory and fail to form consistent conclusions, which reduces the value of the study. Homework is the most complex learning activity, and the relationship between the two is extremely complex due to the involvement of multiple variables, and the appropriate amount of homework varies according to age, gender, and the nature of the subject. Second, while past research has focused on the relationship between homework-related variables and academic achievement, Trautwein, Liidtkke, and Schnyder (2006) recently proposed a systems model that suggests that the learning environment, teachers, student characteristics, and parental roles act on homework behavior by influencing students' expectations and value assessments, which together affect the effectiveness of homework. Which student's homework is more effective, and how different learning environments, teachers, and parental roles work together to influence the effectiveness of homework are areas where research needs to be expanded. Again, individual student homework behaviors are nested within class homework tasks, and homework has different effects on academic achievement at the class level and the individual level; they are easily confused together, and multi-layer modeling techniques make the exploration of their relationship clearer and should receive more attention. Finally, the problem of learning effects of homework has not formed a theoretical model at present, and the research has not been carried out in a certain learning theory system, so the research variables are complicated and fragmented. In the future, research questions and variables should be selected from the already systematic learning theory frameworks such as motivation theory and self-regulated learning to explore the effects of homework, and the effects of homework should be explained according to a more perfect theoretical model.

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