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## Impact of Homework on Learning

James McPherson

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IMPACT OF HOMEWORK ON LEARNING

by

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A capstone project submitted in partial fulfillment of the requirements for the degree of  
Masters of Arts in Education.

Hamline University

Saint Paul, Minnesota

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## DEDICATION

To my wife, Rozanna, for her unwavering support and for shouldering so much extra work during my studies. To my children, Amaya, Dihya, and Laylia, for your love and patience during my late nights and busy weekends. To my parents, for your encouragement and exceptional help to make this a reality. This journey would not have been possible without all of your support and love.

## TABLE OF CONTENTS

|   |    |
|---|----|
| CHAPTER ONE: Introduction.....          | 5  |
| Introduction.....                       | 5  |
| Rationale.....                          | 6  |
| Context.....                            | 7  |
| Summary.....                            | 10 |
| CHAPTER TWO: Literature Review.....     | 12 |
| Introduction.....                       | 12 |
| Purposes of Homework.....               | 13 |
| Implementing Homework.....              | 19 |
| Student and Parent Perspective.....     | 23 |
| Homework and Stress.....                | 29 |
| Summary.....                            | 34 |
| CHAPTER THREE: Project Description..... | 37 |
| Overview.....                           | 37 |
| Project Description.....                | 37 |
| Audience.....                           | 40 |
| Setting.....                            | 41 |
| Framework.....                          | 42 |
| Assessment.....                         | 44 |
| Summary.....                            | 45 |
| CHAPTER FOUR: Conclusion.....           | 47 |
| Overview.....                           | 47 |

Learning.....47

Reflecting on the Literature.....50

Implications and Limitations.....51

Future Research.....52

Results.....53

Summary.....54

REFERENCES.....56

## CHAPTER ONE

### Introduction

#### Introduction

Homework is pretty ubiquitous in school and many people believe that is an important or even essential part of learning. However, many teachers may not consider the myriad of consequences of assigning homework. Assigning homework necessitates students to use their afternoon and evenings towards completing school work after already spending around eight hours in school a day. That time is then unavailable for other activities such as down time, family time, part time jobs, sports, music, hobbies, and socializing. Thus, there could be serious consequences for a heavy homework load. Therefore, my research question is *how does homework impact learning in middle and high school?* I want to know the whole picture of what homework achieves and does not achieve. I want to know the positives and the negatives of assigning homework and finally draw some conclusions about the cost-benefit tradeoff.

I am currently working in Malaysia at an international school and the predominant belief is that more homework is better. Many parents and teachers believe that significant amounts of homework are an important part of learning and that if students study more, they will get better grades. The nature of assigned homework varies: worksheets, questions from the textbook, research for a project, reading, writing, and many other things. Based on my observations, the most common seems to be practice problems or questions based on what was taught in class. The longer that I am in Malaysia, the more I become concerned with the amount of school work being done outside school hours. Most students have private tutors for a few hours a week and may have several hours of

homework each night. There seems to be little balance between school and other facets of life while also a high degree of stress among students. I worry about the consequences of this situation.

This chapter outlines my rationale for limiting or eliminating homework in an effort to establish a more balanced academic-social lifestyle. This rationale is based on my own understanding and experiences as a student and as a teacher. It also provides the basis for my research on the impact of homework on learning. As part of my rationale, I explore the non-academic costs associated with a heavy homework load. Additionally, I strive to place my understanding in context and pave the way for constructive discussions about the usefulness of homework in middle school and high school. My context is derived from my experience teaching internationally, primarily in Malaysia. Through my own observations and conversations, I have developed an understanding of how homework impacts learning, however, I wish to further my knowledge and analysis through this project. Finally, I outline what the rest of the chapters will explore in this text.

### **Rationale**

Education is becoming more and more competitive with students striving to get into the best schools and universities. Often this is driven by test results or GPAs, but as teachers, we need to remember that the objective of the education system is not scores on a piece of paper, but rather real learning. If assessments accurately reflect learning, then they are useful, but if they do not accurately reflect learning then they need to be considered with their limits in mind. Students have a limited time in school and in their days, but the expectations on them are very high. They are being asked to do a lot at

once: study hard, engage in extracurricular activities, go through puberty, become responsible teens and young adults, plan a future, and much more. As teachers, we need to be sure we are supporting them in this ocean of growth and we need to make sure we are not needlessly draining their time and energy.

Homework often consumes much of a student's time outside of school and the positive effect on learning is debatable at best (Carr, 2013, p. 174). In my own classroom, I have seen better performance by students who complete their homework, but I do not believe that the homework is necessarily the cause of that performance. Rather, I believe that the students would do well regardless and that their completion of homework is instead a result of their determination and academic abilities. In other words, completing homework or not completing homework seems to be a result of academic success, not a cause.

Often homework does not promote learning but simply becomes busywork (Burriss & Snead, 2017, p. 200). As an example, I have assigned reading as homework and typically rely on a few questions to ensure that students have completed the work. This is not an uncommon style of homework but offers little engaging activity or higher-order thinking. Students can simply look up easy answers, copy from friends, or even just write from their own ideas. Their goal is not learning, but completion as fast as possible.

### **Context**

I have been teaching internationally for roughly five years. That time has been spent primarily in Malaysia, but I have also taught in Saudi Arabia. During my international experience, I have noticed several cultural differences when it comes to education. There seems to be a larger focus on exam grades, traditional methods and



classroom dynamics tend to dominate schools, private tutors are far more common even at young ages, and homework loads are quite significant. There is less focus on extracurricular activities, sports, hobbies, work or volunteer experience, or even school clubs. In many ways, these attitudes all reflect a very competitive environment where exam results are the sole determining factor between winner and loser. This belief is mirrored by the local university system that really only considers exam results; not even a student's GPA matters. It is hard to know how to influence the system of high stakes testing, but working within the system to establish more balance seems achievable.

Thus, I decided to focus my efforts on homework and its impact on learning. I want to know if homework is effective for learning or if it is a waste of time. I suspect that many of the homework assignments my students receive do not positively impact their learning in any way since they are mindless activities or worksheets. If homework is not beneficial towards learning, then perhaps loads can be reduced and other aspects of growing up can flourish in the time created. My hope is that students can have a more balanced, and less stressful childhood. I believe that it is important for students to have a wide variety of experiences, spend time exploring hobbies and sports, develop strong social skills through interaction with their peers, and gain work or volunteer experience. I also worry that unnecessary stress will have negative consequences on their physical and mental health. There is little that I can do to impact the system of high stakes testing, but perhaps I can reduce daily homework stress and open up new opportunities for students, at least within my own network of teachers and schools.

While working at various international schools I have had many conversations with students. These conversations often reveal how stressed students are about school.

Most students I interact with do not have hobbies, participate in sports, or other activities, but instead are focused almost entirely on academics. My 9<sup>th</sup> grade students attend school for seven hours and usually go home with two to four hours of homework or tutoring per night. My 7<sup>th</sup> grade students often have less homework, but it is not uncommon for them to have two hours each night. These numbers increase during exam weeks. Students have told me that they often rush through work just to get it done, copy from friends or the internet, or just simply write whatever comes to mind. The objective, from their perspective, is completion. There is no focus on learning or reinforcing what is done in class. This leads me to believe that homework is not serving any learning purpose.

However, I do believe that it is important for students to have resources available to them while they are at home. This does not have to be homework; it could be a textbook or other resource that allows students to learn on their own if they want. It can give students something familiar to study from and it can allow the ESL students a way to learn that was not constricted to the pace of the classroom.

During my second year at my current school, I decided to make better use of a previous textbook and I believe that it gives many students a second chance to learn what they may have missed in the classroom. I think this is something that is really important; students need a way to learn from home with guidance and relevance. I may be an expert at sourcing material for my history subjects, but an ESL student in 7<sup>th</sup> grade is not going to be able to wade through the abundance of information to find what is useful to them. This is especially true because the vast amount of historical information requires me to be quite selective in what I teach. I am not against homework, but I believe it needs to serve a learning purpose and it needs to be effective. If it is not positively impacting learning

then it is a waste of time and detracting from other aspects of life. It is really about balance and health. Teens and pre-teens should not be experiencing anxiety and stress to the degree that I see on a daily basis.

The presentation of my final project is just as important as the development of my understanding. Because homework is ingrained in the educational beliefs of most parents and teachers in Malaysia, I need to ensure that my project is presented in a meaningful and relatable way. Parents care about exam results above everything else in education. I need to present any arguments in a framework that relates to exam results for it to be considered seriously. Even so, there is a good chance that my perspective will be ignored without strong evidence to support any conclusions.

### **Summary**

In an effort to help students have a balanced and holistic life, I examine the research question, *how does homework impact learning in middle and high school?* This is an important question because it potentially challenges common held assumptions about homework and learning. In my international teaching experience, especially in Malaysia, homework is seen as a vital part of learning and the more the better. This has led many students to focus exclusively on academics while missing out on other important parts of growing up. It has also resulted in high degrees of stress among teens and preteens.

The following chapters explore the topic of homework and learning. In Chapter 2, I examine the literature related to homework and its impact on learning. Chapter 3 describes my project, a training program and workbook for my colleagues on the impact of homework. Finally, in Chapter 4, I reflect on my project and evaluate its success.

Through my work, I hope to gain a better understanding of how homework plays a role in learning, what exactly that role is, and the best ways to manage it. I will then strive to share my knowledge and provide guidance for fellow teachers and parents. I believe that through a deeper understanding and honest analysis the learning and lives of students can be improved.

## CHAPTER TWO

### Literature Review

#### Introduction

Homework is utilized in almost every school and every classroom. It may be used for a variety of reasons and the teacher assigning homework may have different objectives in mind when selecting what is an appropriate task. However, not all homework is equal. Assignments vary in their requirements and effectiveness. With adequate understanding and practice, teachers can make better use of their assigned homework and make more informed decisions about what its impact will be on learning. The aim of this literature review is to understand the research question: *how does homework impact learning in middle and high school?* This research examines the purpose of homework to understand why teachers assign homework and what they hope to achieve. It then examines and discusses what makes homework effective and meaningful. Next, it explores how parents and students perceive homework and how those perceptions are communicated with the teacher. Finally, it discusses the connections between homework and stress and the impact that it has on students in middle and high school.

Historically, homework has undergone several changes based on educational philosophy and societal needs. Our understanding of educational practices during the nineteenth century is not complete, but based on the need to memorize and recite during many lessons, it can be assumed that some degree of homework was expected (Gill & Schlossman, 1996, p. 30). In the early twentieth century, the debate over homework continued. Anti-homework sentiments were founded in the perceived health hazards

associated with physical and mental health as well as a loss of educational activities outside of school (Gill & Schlossman, 1996, p. 39). While the specifics of the health concerns may have been less precise, the concern about too much work for young students has not gone away. Also consistent across history is the belief that there is more to a holistic upbringing than academic pursuit. Towards the middle of the twentieth century, new arguments emerged that homework did not achieve its academic aims and failed to improve learning (Gill & Schlossman, 1996, p. 45). During the second half of the twentieth century, homework loads have been estimated at a few hours per week (Murphy & Decker, 1989, p. 261). A 2004 survey conducted by the University of Michigan found that the amount of homework is up 51% since 1981 (as cited in Sallee & Rigler, 2008, p. 46). As homework levels continue to increase, it is unsurprising that these concerns of health, time, and usefulness continue to enter into the debate today.

### **Purposes of Homework**

There have been many studies over the years that examine the effectiveness of homework in improving academic achievement. Various studies have also examined the different types and aspects of homework, and their effects on achievement. The Northwest Regional Educational Laboratory (2005) organized homework into four categories: memorizing, increasing skill speed, deepening understanding, and preparing for future learning (as cited in Danielson, Strom, & Kramer, 2011, p. 18). These categories are divided by the type of work students engage in and the intended outcome. From these categories, it can be inferred that teachers use homework to help memorize important ideas, facts, or formulas. They may also use homework to give students time for additional practice of a skill they already know. They may use homework to further

understanding of a topic introduced in class by providing more challenging or deeper questions as homework. Finally, they may use homework to establish some basic understanding before a lesson.

Following a similar division, the Elmbrook's Grading and Reporting Task Force (2006) divided homework into three categories: practice assignments, preparation assignments, and integration assignments (as cited in Danielson, Strom, & Kramer, 2011, p. 18). These categories provide a similar breakdown of homework types based on their function. Compared to the Northwest Regional Education Laboratory, Elmbrook has combined memorizing and increasing skill speed into a practice category. The division of categories of homework serves the purpose of providing a common language when discussing homework. It also helps to frame the discussion of homework, its effectiveness, and its impact on learning.

While there are different types of homework that serve a variety of academic purposes, other articles indicate further reasons for assigning homework. Cooper (2007) suggested that homework can help establish long term academic benefits through the development of study habits, self-direction, self-discipline, time management, and independent problem solving (as cited in Carr, 2013, p. 171). Carr (2013) believed that one of the most important aspects of homework is the development of self-regulation (p. 172). This is an important skill to develop to help prepare students for a future of learning. Glanville (2002) described the shift from high school to college as a "cognitive shift from passively following algorithms to actively designing heuristics" (p. 23). Part of the responsibility of teachers is to prepare students adequately for this transition. Some

believe that homework can help with this process of inculcating students with the ability to learn on their own.

Van Voorhis (2004) developed a comprehensive list of reasons for assigning homework which includes 10 purposes: “practice, preparation, participation, personal development, parent-teacher communication, parent-child relations, peer interactions, policy, public relations, and punishment” (p. 207). Not all these purposes are positive, but they do reflect the broad scope of homework utilization. It is important that the purpose of homework is well established and considered before making any decision on what to assign. School leaders and teachers need to have a clear understanding of what they hope to achieve with any homework that students bring home.

Practice and preparation both function as primarily academic motives. Practice homework seeks to consolidate what was learned at school and to further develop skills already introduced by the teacher (Van Voorhis, 2004, p. 207). A common example of practice homework is a set of math problems. Typically, these practice problems will be of a similar difficulty to those introduced in class, but they sometimes include more challenging problems meant to stretch students. Preparation homework is aimed at getting students ready for the next lesson by introducing a topic or engaging in prior knowledge. Preparation homework could be used to make lessons or class discussions more beneficial. A common example of preparation homework is reading the appropriate pages in the textbook before the topic is taught in class.

Participation can give students an opportunity to demonstrate their understanding and skill in a setting outside the classroom (Van Voorhis, 2004, p. 207). Not all students may actively engage in the classroom, but homework can give them a way to demonstrate



their abilities or to identify areas of struggle. An essential aspect of this purpose is attentive teacher marking and feedback. If teachers respond slowly to assigned homework, or simply give them a cursory glance then this purpose can fail to materialize.

Personal development captures many of the non-academic perceived benefits of homework. It includes the development of self-regulation, time management, and self-motivation. It also includes self-teaching and learning (Van Voorhis, 2004, p. 207). Students should develop some ability to manage homework as well as a degree of self-learning on their own in their preparation for college where these skills will be required. One challenge with this purpose is that these skills are rarely explicitly taught or modeled to students and they are often left to flounder.

Since parents are often involved in the homework process, homework also provides a means of parent-child communication (Van Voorhis, 2004, p. 208). This can allow parents more knowledge of what their children are learning and foster a bond between parent and child, but it can also have a negative effect when homework is perceived as a task to be completed rather than a tool for learning. Kohn (2006) outlined the stress that homework places on family relationships. He argued that communication is often diminished to the parents assuming the role of taskmaster rather than improving communication (p. 12). If homework is unclear or challenging it can have negative effects on family life. Teachers must consider this possibility when designing and assigning homework. Teachers must also work with parents to communicate the role of homework in learning, and the desired perspective on assigned work.

Parent-teacher communication allows parents to know what is being taught in the classroom and provides some guidance in helping their children succeed (Van Voorhis,

2004, p. 208). A teacher may share the topics they are being taught, but each topic can entail a variety of different components that may be unclear unless otherwise made explicit. Homework can help parents gain a clearer picture of what is happening in the class. However, if the homework assignment is unclear or the parent has learned the topic in a different way than the teacher is teaching, it can generate more tension between parents and teachers. Kohn (2006) argued that homework places an added stress and burden on parents; one that is exacerbated when assignments are unclear or challenging (p. 10). This purpose is a double-edged sword because it has the potential to improve clarity and communication between teachers and parents, but it also has the potential to obscure it. It is imperative that teachers provide clear guidelines and expectations on their homework assignments to ensure positive engagement with parents.

Peer interactions have a similar risk as those associated with parents. Homework can often be used in an effort to develop communication and teamwork skills between students (Van Voorhis, 2004, p. 208). An example of this is a group project. However, they can also degrade relationships between students if efforts are perceived to be imbalanced. One method teachers can use to help mitigate this is by helping students organize and distribute work equally and by establishing protocol when group members fall short.

Homework may also be assigned because of a policy that is out of the control of the teacher (Van Voorhis, 2004, p. 208). It may also be assigned out of parent or public expectation. Many schools have policies in place to help regulate homework duration, frequency, and procedures. These can help balance homework loads, but they can also place pressure on teachers to assign homework simply to fulfill an expectation. It is

unlikely that homework created under these purposes will generate highly beneficial assignments. Public relations can compel schools to create homework so that parents feel like learning is happening. Parents may only interact with the academic process through homework assignments since they are not in the classroom and may not communicate about learning with their children outside of homework conversations. In this case, a lack of homework could be perceived to indicate a lack of academic rigor. Teachers and schools should take care to communicate their educational philosophy and academic expectations regardless of homework standards so that those trained and skilled in education have the power to make decisions based on the learning needs of students, rather than as a response to outside whims.

The final purpose of homework outlined by Van Voorhis (2004) is as punishment. It is widely accepted that assigning homework as punishment is improper. However, it is possible that teachers may still assign heavy homework loads in response to poor performance on an exam or quiz. Extra practice in response to struggling students is not inherently wrong, but teachers must be careful to analyze the problem and their own intentions. They should consider if the poor performance is due to unclear teaching, confusing instructions on the assessment, lack of practice, poor study routines, or any number of other challenges. It would likely be far more productive to reconsider how the topic was taught or how students are studying, rather than overloading them with extra homework.

It is imperative that homework is assigned with a clear purpose and objective. Teachers should be able to articulate why they are assigning each homework task and should be able to justify the time and effort required to expected learning outcomes. This

requires careful consideration and thought from the teacher, and may generate difficult questions about prior habits. Homework deserves the same attention that goes into designing powerful lessons so that students are able to benefit from each assignment. This is exponentially more important when considering the negative consequences of homework loads on students.

The purpose of homework can impact its effect on learning and it is important that teachers take this into account before determining what work to assign. When homework is utilized to serve a genuine academic objective, it can have some benefit toward learning (Fernandez-Alonso, Suarez-Alvarez, Muniz, 2015, p.1080). However, if homework is assigned for the purpose of routine or policy, it may not positively impact learning. Thus, teachers must be honest with their intentions so that homework, if assigned, can be beneficial to students' learning.

### **Implementing Homework**

Once a teacher has decided that assigning homework will serve an educational purpose and that the assignment will be worth the students' time and energy it is important for the teacher to consider the design of the homework assignment. The teacher must consider what makes effective homework. Five fundamental characteristics were identified by Vatterott (2010): purpose, efficiency, ownership, competence, and aesthetic appeal (p. 10). Once purpose has been established as meaningful, the teacher needs to keep that purpose in mind as they develop the homework in a similar way that a strong lesson remains in alignment with the lesson objectives. Carr (2013) stated that, "teachers should not assign homework as a matter of routine, rather only when there is a specific purpose" (p. 174). It is important that the purpose is specific and articulated; it should not

be a general statement such as that it will provide extra practice for students. Teachers assigning practice problems should specify what skills need the additional practice outside of class, how that will be achieved through homework, and what feedback students will get during and after the homework assignment.

The second characteristic of meaningful homework is efficiency (Vatterott, 2010, p. 12). Homework should be completed in a reasonable amount of time and teachers should account for the age of the students as well as the other subjects they are studying. A common guide is 10 minutes of homework per grade level, so a grade 8 student should have 80 minutes or less each night according to this guideline. Studies have shown that students with too much homework actually perform worse in school (Cooper et al., 2006; Shumow, 2011, as cited in Carr, 2013, p. 174). At the middle school level, 90 minutes is considered the maximum according to these studies. Fernandez-Alonso, Suarez-Alvarez, & Muniz, (2015) indicate that after 90 minutes of homework, performance starts to decline (p. 1080) . An 8th grade student receiving homework in each class and taking six subjects should only have about 13 minutes of homework from each teacher according to this guideline. A small increase to 20 minutes from each teacher adds up to 120 minutes, well over the 90-minute threshold indicated by Carr. At this point, homework is detrimental to student learning. Even if the teacher has the best of intentions and designed a perfect assignment to achieve that purpose, the mere time spent and associated stress causes a negative effect on learning. Certainly, lower quality homework that exceeds that time is far more damaging. It should also be noted that this time threshold is merely for a negative impact on academics and completely ignores the negative effects on health, social activities, family life, and other aspects of growing up. Sallee and Rigler (2008)

reported that 49% of students surveyed said they had extracurricular activities for 2 or 3 hours each day (p. 48). This further adds to the commitment of many students and could leave little time for family, social interaction, or relaxation. Extensive homework loads could also cut into students' sleep such that they fall significantly below the recommended hours of sleep. If a teacher decides that a particular homework assignment is important and they want to ensure that it is efficient, they must also remember to consider the range of student ability. What takes one student 10 minutes, may take another 30 minutes or more for a multitude of reasons.

The third characteristic of effective homework is ownership (Vatterott, 2010, p. 12). Students should feel a connection to the assignment so that it has an impact on them. Carr (2013) suggested one way to achieve this is by providing students with some degree of choice (p. 174). Ownership can also come from a genuine understanding of why it matters. When students feel their time is respected and that an assignment serves a learning purpose, they will feel a strong sense of ownership in the work and get more out of the assignment. The common, "practice of 'checking in' homework and giving completion grades communicates the message that many assignments are relatively meaningless" (Sallee & Rigler, 2008, p. 47). Students that feel disconnected from the work and perceive it as busywork are more likely to adopt an attitude focused on completion rather than learning. Sallee and Rigler (2008) reported that an equal number of students described their impression of homework as busywork as said it was a valuable way to prepare for class (21%). Additionally, 13% said it was a chance for easy points and another 13% said it was an opportunity to deepen understanding (p. 48). This indicates that half of students do not see a learning purpose in homework since they view

it as easy points or busywork. There is clearly a serious problem with the design of homework if so many students do not feel connected to it or see any meaningful purpose in it.

The fourth characteristic of effective homework is competence (Vatterott, 2010, p. 13). Students need to feel that they are able to complete their homework. Homework should be clear and concise, and it should be of the appropriate difficulty for students. Differentiation is one way to help improve this aspect of homework. A suggestion of Cooper and Nye (1994) is to allow students to start on their homework assignments during class so they have an opportunity to ask questions and get clarification (as cited in Carr, 2013, p. 176). When students do not feel competent to complete the assignment, they may feel stressed or frustrated or disengage from the work. The assignment should also be something that is not too easy and requires some thinking.

The fifth characteristic of effective homework is aesthetic appeal (Vatterott, 2010, p. 14). Homework assignments should feel inviting and its design should be easy for students to understand. Students need to be able to clearly find directions, have enough room to answer questions, and not be distracted by extraneous information. Teachers should consider the students' ages when deciding what appearance is appropriate. Homework that appears confusing or overwhelming could cause students to be less inclined to approaching the assignment with a positive attitude or even cause them to avoid it altogether.

When homework is assigned with little thought regarding its effectiveness and its consequences, it is unlikely to aid in learning. It is important that teachers take time to plan and reflect on their use of homework so that, if assigned, it can be beneficial towards

student learning. If it is not going to achieve real objectives then it is not worth assigning. It should be utilized with specific objectives in mind and designed to achieve these objectives with a high degree of success. Communication between parents, students, and teachers is essential to developing productive work outside the classroom. It is also important to remember that students are human beings with a life outside of academics that is equally important to growing up. Students' time and other commitments, as well as their efforts, should be respected.

Once it has been determined that homework will serve a learning purpose, it is important that the assignment is designed to be as effective as possible. This can be achieved by taking into account the different aspects of effective homework: purpose, efficiency, ownership, competence, and aesthetic appeal. If homework has a learning purpose, and if it is effectively designed, then it can have a positive impact on learning. Thus, it is important that teachers are knowledgeable about the best way to design homework. Once teachers are conscious of their own homework design, they will be better prepared to design effective homework.

### **Student and Parent Perspectives**

When examining the effectiveness of homework, it is essential to consider each group involved in the completion of homework. Teachers assign homework to students, who then will choose to engage with it or not. Teachers may receive some guidance or instruction from school leaders and other department members. Students also have another primary source of input, their parents. Parental attitudes and actions towards homework may have a strong impact on its completion and may impact student beliefs. Parents can choose to encourage homework completion, or they may choose to present an



apathetic attitude towards it. Some parents may be more involved and actively assist their children with their homework, while other parents are less involved but create a positive space for academic work. There are a myriad of behaviors that parents and students may display towards homework, and so it is important to understand their perspective.

Parental perspective on homework varies, but one study suggested that parents are decreasingly viewing homework as very important. Kukk et al. (2015) showed a decrease from 95% to 73% for parents that believe homework is very important from 2005 to 2013. According to this study, parents believe that homework is important because it can help consolidate learning, develop responsibility and time management, fill children's leisure time, and provide a sense of accomplishment. However, parents have some doubts since the homework task is not always clear, it takes too much time and detracts from hobbies or other activities, and it may only be beneficial for some students. Parents that claimed homework was not important stated that the homework loads were too heavy and that studying should take place at school (Kukk et al., 2015, p. 140). It is important to note that this study was conducted in Estonia, however, similar feelings have been expressed through other sources.

In a 2015 editorial, one parent outlined their mixed feelings about homework. Many of these comments mirror comments made in the Kukk et al. study. Hargis (2015) stated that "most of us aren't teachers and simply don't know how to introduce new concepts or topics without tears" (para 8). She explained how homework could be used to reinforce concepts that are learned at school, but can be a big struggle when new concepts are introduced at home since parents do not always know how to approach them. In another section of the article she wrote that methods and instructional phrases have

changed over time, making it difficult to teach children the way parents learned. Hargis (2015) also expressed the challenge of time stating, “many of us also work full-time, have other children needing homework help, dinner or a lift somewhere” (Hargis, para 4). All of these factors can lead to a frustrating homework experience for parents and students. One suggestion is that it can be helpful for teachers to let parents know what the teacher expects their role to be in homework completion (Cox, 2020). These suggestions, as well as the mirrored struggles in Hargis’ editorial, suggest that the Kukk et al. study is applicable to a much wider audience and that parental perspective is broadly similar around the world.

While parental attitude may impact the usefulness of homework, another critical factor is that of the students. In a study by Burriss and Snead (2017), 33% of middle school students believe that homework was assigned to help them learn, 21% believed it was for review and practice, 12% believed it was for assigning busywork, 12% believed it was for assessment purposes, 10% believed it was a punishment, 4% believe it was to help them improve, and 8% were unable to be categorized (p. 200). Just over 50% of students believed that homework served a learning purpose. Many students self-reported that they believed that homework was assigned with someone other than the student in mind. Students would be unlikely to have a positive attitude towards completing assignments if they share this perspective. Nearly one fourth believe that it was assigned as busywork or punishment. These results are concerning because they indicate a disconnect between teacher, parent, and student perception. The study further reported that middle school students spend an average of 3.45 hours on homework each week (Burriss & Snead, 2017, p. 200). This aligns with the suggestion from Cox of 20 to 40

minutes of homework per night for grades 4 to 6 and 60 to 90 minutes per night for grades 7 through 12. Another study by Kackar et al. (2011) reported that students from grades 6 to 12 spent between 2.2 and 3.7 hours of homework each day (p. 74). This is a significant discrepancy but highlights the differences between homework assignments from school to school.

Overall, the study by Burriss and Snead (2017) concluded that, “there may be insufficient teacher attention given to the planning, implementation, and evaluation of homework” (p. 206). The implied solution is that more effort needs to be put into making sure teachers are using homework appropriately and that student perception of homework matches those of teachers and parents.

One of the reasons for this disconnect may be that teachers are not fully aware of the students’ experience completing homework. Hong, Wan, and Peng (2011) stated that “teachers need to have an understanding of homework difficulties that students are experiencing and the reasons students do not complete their assignments” (p. 283). It is essential that communication is strong between teachers and students to improve learning outcomes. Whether homework is used or not, students need to be genuinely connected with their teachers for a positive learning experience, and they need to know that the connection exists. The study of Chinese student and teacher perceptions of homework by Hong, Wan, and Peng (2011) suggested that students tend to rate their homework behavior more negatively than teachers and this was more prevalent in their English homework compared to math homework (p. 298). This shows a disconnect between teacher and student that is important when considering the effect of homework. Their data also suggested that the reasons for homework difficulty or incomplete assignments

did not always match between teacher and student perception. For example, students were more likely to blame their own attitude, while teachers were more likely to blame incompetence for problems with the homework. For incomplete homework, students blamed the amount and difficulty of the homework much higher than other factors such as social activities, lack of interest, or other activities. Teachers tended to share their blame more equally across reasons, but put the highest emphasis on difficulty, amount, lack of interest, and in school activities (Hong, Wan, & Peng, 2011, p. 291). This study highlights the differences between teacher and student perception. It also shows that students do not view extra activities or interest level as a reason for incomplete homework nearly as often as the difficulty and amount of homework. In other words, from the students' perspective, homework tends to be incomplete due to the nature of the homework itself. Teachers accepted a slight emphasis on these factors, but equally attributed incomplete assignments to other factors.

While there is often a disconnect between teacher and student in regards to homework intention, performance, and expectation; there is also misunderstanding between parents and students. Some misunderstandings occur when parents believe that one environment and method is best suited for homework while their children have different preferences. In a study on homework motivation and preference by Hong, Milgram, and Rowell (2004), they found that, "the greater the gap between preferred and actual conditions, the lower the achievement was" (p. 199). Students have individual preferences when creating a homework environment, and they are often aware of what works for them. Hong, Milgram, and Rowell compiled a profile of preferences for high and low achievement based on their research. Unsurprisingly, they found that motivation

from teachers, parents, and themselves were indicators of success. They also found that procrastination tended towards lower achievement. Clear and structured assignments, as well as a consistent environment also played a role in high achievement. More surprisingly, however, they found that background sound such as music, a warm temperature, and the presence of peers and an authority figure were all conducive to higher achievement (Hong, Milgram, & Rowell, 2004, p. 200). Clashes between preferred environments, stemming from parental imposition or lack of choices, lead to lower levels of achievement. It is important that parents and students understand each other while creating a productive learning environment. Students working in an environment that fits their preferences is essential to their success in homework, however, it is important to understand why these different perceptions arise.

Parental involvement has a potential to be beneficial for student achievement, and some studies suggest that it can “accelerate learning by increasing the amount of time students spend studying and making homework study more efficient, effective, and focused” (Patall, Cooper, & Robinson, 2008, p. 1040). Other studies suggest an opposite effect; however, it is likely that the type of involvement is what makes a key difference. Patall, Cooper, and Robinson (2008) indicated that parental involvement can improve homework completion and performance, promote attentiveness, enhance child-parent communication, and develop study skills. Negatively, parental involvement can interfere with learning, increase fatigue and frustration, increase pressure to perform, and increase stress (p. 1041). This mix of outcomes suggests that the method of interaction and the relationship between child and parent is a primary factor for homework being a positive learning experience. Patall, Cooper, and Robinson (2008) analyzed a myriad of studies

and concluded that, “the positive effect of involvement was small, if it was different from zero at all” (p. 1085). Their synthesis suggests that there is little conclusive evidence to suggest involvement in homework is a key indicator of success. Parents have the potential to inculcate strong learning and study skills within a child through positive examples, encouragement, communication, and assistance; however, they also can interfere with the development of these traits when interaction is negative. Strong communication and shared perspectives on homework can aid in developing positive learning interactions between parent and child.

The perception of homework by parents and students can also influence homework’s impact on learning. Students and parents that have a positive view toward assigned work are more likely to benefit from it. On the other hand, negative perceptions can undermine even well-designed assignments. It is therefore important that the perception of homework is carefully managed and expectations are clearly communicated to students and parents.

### **Homework and Stress**

Large amounts of homework are often linked to increased stress among students and parents. High stress levels over extended periods can lead to negative physical and emotional consequences, especially during adolescence. “A study published in 2002 found a direct relationship between how much time high school students spent on homework and the levels of anxiety, depression, anger, and other mood disturbances they experienced” (Kohn, 2006, p. 11). This is a concerning reality that must be strongly considered when assessing the impact of homework on students. However, others contend that there is not as much of a problem with homework, but rather time

management. Zuzanek (2009) concluded that, “we face not so much a ‘homework problem’ but rather, in a broader sense, a societal time use problem” (p. 115). Zuzanek based this assessment on a comparison between homework loads across multiple countries, using the estimate of 0.9 hours of homework per school day for high school students in the United States (Zuzanek, 2009, p. 112). This is far below other estimates. It is unsurprising that Zuzanek comes to the conclusion that homework is not a pressing concern. However, anecdotal evidence and other studies suggest that actual homework loads are significantly higher than one hour per day in high school. These heavy workloads during high school have contributed significantly towards teen stress levels with serious consequences.

Some studies have shown that homework has a limited positive impact on school performance, however, it appears that the benefits plateau at about 2 hours per night for high school students (Galloway, Conner, & Pope, 2013, p. 491). Nevertheless, it is essential that homework is considered holistically, accounting for the broad scope of its impact on the student and their family.

Galloway, Conner, and Pope (2013) reported several studies that demonstrate homework loads being a significant cause of stress for students (p. 492-493). These reports described homework as the primary source of stress among students. Further reports by Yang, Kim, Patel, and Lee (2005) indicated that homework is often the reason for students’ sleep deprivation (as cited in Galloway, Conner, & Pope, 20013, p. 493). These reports make it clear that students are stressed about the amount of homework they have. Students may feel pressured to complete homework by their peers, teachers, and parents. Stress has been shown to cause a myriad of negative effects including:

headaches, muscle tension or pain, fatigue, sleep problems, anxiety, restlessness, lack of motivation, irritability and anger, depression, over or under eating, drug and alcohol use, tobacco use, and social withdrawal (Mayo Clinic, 2019). These are serious consequences facing young students who may have limited experience in coping with stress in a healthy way. Developing healthy and constructive habits for stress management is not always an easy task, and feeling overwhelmed, a common effect of stress, makes it that much more difficult to handle.

Additionally, many students are experiencing a host of other changes including puberty, changing social structures, increased expectations of responsibility, and major life decisions. The stress from homework mixed with the stress of growing up is a recipe for serious long-term consequences. According to Suldo, Shaunessy, and Hardesty (2008), “adolescence is a developmental period when children may be particularly vulnerable to the negative effects of stress” (p. 273). Their article cites several studies that show a link between stress and academic underachievement as well as diminished life satisfaction (Suldo, Shaunessy, & Hardesty, 2008, p. 273). Teachers may assign homework in the hopes that it will help students to learn more and score higher on exams. However, the negative effects of stress can undermine this intention while also imposing other negative consequences. Thus, the very intention behind homework is compromised by the stress it induces and is magnified by the targeted age group.

The study by Suldo et al. (2008) indicated that some coping strategies can have a positive effect on stress management, but others can lead to lower life satisfaction. They found that positive appraisal coping and family communication increased life satisfaction while negative avoidance and anger coping decreased life satisfaction (Suldo et al., 2008,



p. 281). On the positive side, these results indicate that there are good ways of dealing with stress and that if they are utilized then some of the negative effects of stress can be minimized. These strategies include communicating meaningfully with family and maintaining a positive dialog and outlook on one's situation. Negative methods include substance use, avoidance, and anger. Unfortunately, adolescents may not be experienced enough to positively navigate the stresses in their lives. It is the responsibility of parents and teachers to help students to manage in a constructive and effective way.

Teachers are in a position to impact their students' lives in a positive way by making decisions regarding homework. They should approach homework design with an appreciation for the best design practices and the consequences it will have on students. It is important to consider the full range of effects that homework, and the resulting stress, can have on students and their families.

Another area of concern with heavy homework burdens is the effect that it can have on family time and family interaction. Homework can change the dynamic of family interactions and increase the stress on parents. Suldo, Shaunessy, and Hardesty (2008) cited several studies that demonstrated the negative effect of homework on home life including reducing the time for family activities, social life, cultural or religious enrichment, and leisure pursuits (p. 493). These studies by Cooper (1989), Dudley-Marling (2003), Kralovex and Buell (2000), and Nordmo and Samara (2009) also suggested that homework could create tension in the home and impair family communication. Kohn (2006) corroborated this assessment and suggested that, "when Mom senses that her parenting skills are being evaluated, you may be sure her offspring will share the burden" (p. 12). He went on to suggest that the demands of homework can

lead to a family dynamic of nagging or yelling and a focus on completing homework. Family interaction may be reduced to this shared burden of completing assignments each day. It can be further exacerbated when the assignment is challenging and parents are struggling to understand or to teach. Kohn (2006) suggested that, “children orient to homework as an organizer of their time, and a gate-keeper from other activities if there is homework to complete” (p. 14). This dynamic of home life is not limited to the children, but also to parents who may neglect other matters so that their children can finish their homework. Family visits or outings, social events, sports and clubs may all be put aside so that homework can be completed. Compounding this situation is that homework is rarely discussed as a learning tool, but only as a chore to be completed. There is little interaction between parents and children about the content of the homework, or how it aided in learning a subject (Kohn, 2006, p. 15). This indicates a minimal value in homework as a learning tool and certainly shows that parents and teachers are not in alignment on the benefits of homework.

Even when families recognize the negative consequences of a heavy homework load, they are often powerless to change it. Incomplete assignments may reflect poorly on the student, force them to face their teachers in a stressful situation while explaining their incomplete work, impact their grades, or impact their social standing with fellow students. Students are confronted with a challenging situation that has negative outcomes either way. It is up to the teacher to act in the interest of their students’ well-being and to make conscious decisions when assigning homework.

These studies regarding the impact homework has on family life are concerning because the consequences are felt doubly. First, they impact the amount of time students

have for family and other, non-academic, activities. Second, they add stress to the student and parents that further reduces the quality of the limited time left. The study by Galloway, Conner, and Pope found that, “more hours of homework was associated with increased school stress and physical distress, and decreased ability to cultivate skills outside of school” (2013, p. 499). The overall effect on students and families is negative for a variety of ways for the limited, at best, academic benefit of homework. These effects can be long lasting and impact the mental, emotional, physical, and social development of students.

Even when homework has been assigned for an academic purpose, is effectively designed, and perceived positively by students and parents it can still carry negative consequences for students and families. Stress from homework can be detrimental to the health, happiness, and success of students. It is ironic that too much homework can actually undermine its own intention and result in poorer academic results. Even the best of homework only has little positive impact which may be outweighed by the negatives of stress and lost free time. Teachers should carefully consider the students’ wellbeing along with academic aspirations before determining homework assignments.

### **Summary**

Homework has become an integral part of the education system, but it is often assigned without proper consideration. Many teachers assign homework as a matter of routine or in response to external forces such as parental expectation or policy. This creates an unfortunate situation because the homework is failing to achieve any meaningful impact on learning. Teachers must consider all aspects of homework before assigning students work. They must consider the purpose of the assignment, and the most

effective means of reaching that purpose. It is essential that the purpose of homework is explicit, specific, and clearly articulated by the teacher. Homework typically falls into 10 different purposes, some of which are beneficial while others may not be. Those categories are: practice, preparation, participation, personal development, parent-teacher communication, parent-child relations, peer interactions, policy, public relations, and punishment.

Once the purpose and specific learning objective has been established, effective homework has five key features: purpose, efficiency, ownership, competence, and aesthetic appeal. Designing homework that contains these characteristics can help that homework to achieve its objective and to make the homework beneficial for learning. However, other factors must also be considered.

Even the most academically sound homework has the potential to negatively affect students' lives because of its non-academic consequences. Certainly, the negative consequences of poorly designed homework are far worse since there is little or no positive to balance out any negatives, but even the best homework should be considered cautiously. Homework can take away time for social activities, family time, extra-curricular activities, sports, leisure time, hobbies, and much more. It can also lead to increased stress and frustration that can manifest in physical and emotional ways. The consequences of stress are exacerbated by the developmental stage of middle and high school students. It is important to consider not just the academic merit of the homework, but also the tradeoff of non-academic life. Students are growing human beings, with complex lives and needs. They deserve the utmost respect and consideration when teachers have the ability to impact their lives either positively or negatively. Often,

teachers and school leaders may be unaware of the potential impact homework and homework policy can have on students and may rely on custom or routine when making decisions regarding homework. It is important that choices are made from a position of knowledge and appreciation for the benefit of the students learning and growth needs.

Chapter Three discusses how this understanding is utilized to help teachers make better choices about homework. Through a deeper understanding of the characteristics of good homework and an appreciation for the consequences for students, teachers can make informed decisions. A comprehensive and interactive training seminar was designed in order to develop this holistic understanding. Chapter Three outlines this project, its context, and its intended objectives.

## CHAPTER THREE

### Project Description

#### Overview

Many teachers use homework in their classrooms, sometimes with little consideration for the effectiveness and consequences it entails. It is important that teachers consider these factors. Thus, an interactive overview of homework was developed into a professional development program and workbook to address the research question: *how does homework impact learning in middle and high school?* Reflecting on the research examined during the literature review, I created a training program and accompanying workbook to help fellow educators make informed decisions about the use of homework. This was shared with my colleagues in Malaysia.

#### Project Description

The program consists of several lessons that encompass the subject of homework. The goal was to present my findings to my colleagues, and get them more consciously involved in decisions about homework. The sessions, and workbook, walk through the different considerations before assigning homework, the various ways homework can be made effective, and the consequences of assigning homework. This equips the participants with the ability to make informed choices regarding the implementation of homework in their own classes.

The first presentation introduces common homework practices and purposes. In this session, teachers examine ways to maximize the effectiveness of any homework assigned to improve learning. They also explore the consequences of homework, such as limited free time and increased stress on students and families. The second presentation is

reflective and allows teachers an opportunity to analyze their homework practices and share their experiences. During the second session, they also share what improvements they have made to old homework assignments to make them more effective.

The training workbook was shared during the school year, giving teachers an opportunity to immediately experiment with implementing the ideas presented. The training presentations were not shared with my colleagues due to special circumstances. The workbook was shared already because training conducted during the longer summer break may be less effective since it can not be immediately acted upon. It was also important to share the workbook early in the term so that teachers could implement new ideas with minimal disruption to their planning or rhythm.

The workbook was distributed to teachers digitally, and they were encouraged to work through it either during department meetings or on their own. Discussion among colleagues was also encouraged to facilitate a deeper understanding and an interactive approach to learning.

Ideally, the professional development sessions are divided into two sessions. The first session will last one and a half hours, while the second session is one hour. They would be conducted during the school's scheduled meeting time after lessons during the week. The first introduces all of the ideas and research, while a second meeting allows teachers an opportunity to follow up with their experiences and ask questions. The second lesson takes place two or three weeks after the first lesson. This gives teachers some time to try out new ideas, but also provides an outlet for sharing and reflection. Teachers are expected to implement ideas from the first lesson and bring examples of their work to the second reflective lesson.

The project first defines common homework practices and identifies the different purposes for which it is assigned. These purposes, identified from Van Voorhis (2004), are, “practice, preparation, participation, personal development, parent-teacher communication, parent-child relations, peer interactions, policy, public relations, and punishment” (p. 207). Each of these is briefly explained and categorized as generally productive or non-productive. It is important that teachers make a conscious decision about why they are assigning homework and what their objective is. They should then be sure that the homework works towards that objective.

Next, the project discusses the best ways to implement homework so that it is effective in attaining the desired objective and purpose. This discussion utilizes the features identified by Vatterott (2010) as purpose, efficiency, ownership, competence, and aesthetic appeal (p. 10). The project examines each in turn so that teachers are best equipped to design effective homework. Teachers have an opportunity to redesign one of their previous homework assignments taking into account these five features. This redesign will give teachers an opportunity to apply their developing knowledge. They will then reflect on their design choices so that homework design becomes an intentional and conscious process.

Finally, the project examines the myriad of consequences of homework through a presentation of research data. Participants learn the realities of the effectiveness of homework and the potential harm it can cause when overused. Areas of concern include: lack of time for other activities, diminished family interactions, stress, disengagement from learning, and lack of sleep. These consequences are emphasized so teachers can make informed choices when they decide how frequently and how much homework to



assign. Teachers should strive to make conscious decisions by first examining if homework is necessary and then determining if the assignment will achieve a needed objective.

### **Audience**

The intended audience for this professional development presentation is international school educators in Malaysia. While these educators are the direct audience, there is no reason that other educators in Asia or around the world would not find benefit in the presentation. International schools in Malaysia predominantly follow the Cambridge IGCSE curriculum, which has certain requirements and structure. The most significant aspect of the curriculum is that it culminates in subject specific exams to determine academic success. While other curriculums may rely on homework and project grades, Cambridge IGCSE relies exclusively on exam grades. However, homework is often utilized as a part of the educational process to achieve academic success.

International schools in Malaysia have more flexibility in their approach towards teaching and learning since there are fewer governing laws or standards. In essence, each school is free to determine their own approach to education, as well as homework.

The specific audience in mind is of mixed experience, with many teachers being veteran teachers in their subjects. It also has variance in educational background with teachers from around the world and from a variety of education and non-education degrees. It is also noteworthy that the specific international school does not currently have a rigidly enforced homework policy. In the past, the school has tried to distribute the homework load more evenly over the week, which suggests some concern for student workload.

Initially, the presentation was supposedly to be conducted in a professional development seminar within the school. The presentation was going to be delivered in a medium sized room which has space for about 50 or 60 people at tables. The audience would be divided into smaller groups so that learning can be collaborative and active. Participants then engage in several activities to analyze and evaluate their own homework assignments, and to develop improved homework practices that they can take into their own classrooms. However, due to special circumstances, including the COVID-19 pandemic, only the workbook was distributed digitally to teachers. Teachers were then encouraged to discuss among their departments. Typically, departments have around four to eight teachers. Teachers were also encouraged to discuss with each other across departments to get the most out of the material.

### **Setting**

The school has approximately 300 students in grades seven through eleven. Most of these students are local Malaysian students, but there is a notable population of international students. Most of the international students are from other asian countries. While there is still a local majority, there is a larger percent of international teachers compared to that of the student body. The teachers come from around the world and teach a variety of subjects.

The school offers the typical international school experience including a wide range of subjects, after-school activities, field trips, and sports. The school's tuition fees are in the middle to high range, but not in the top tier. The school is also owned by an international education business that has schools around the world. This acquisition happened about a year ago, so some aspects of integration are still ongoing.

Overall, the school is fairly representative of international schools in Malaysia in terms of its students, teachers, educational program, and facilities. This helps to support any conclusions found through the project and suggests that they could be applied easily to other institutions in Malaysia.

### **Framework**

The presentation relies on a framework of adult learning described by Darling-Hammond, Hyler, and Gardner (2017). Their framework is focused on content, active learning, collaboration, use of models, support, and reflection. Utilizing these ideas, an effective professional development program was established.

The content focus is somewhat broad since it captures all subjects and many grade levels. However, it deals with a very specific area of focus: homework. The workbook was delivered digitally to educators at my school. The presentation is designed to be delivered in a professional development setting for educators. However, there are opportunities to implement ideas in the classroom immediately and reflect on them during the second session. Darling-Hammond, Hyler, and Gardner (2017) suggested that this type of professional development can offer opportunities to study students' work, or focus on a particular area of pedagogy (p. 5). During the first session of the presentation and the first part of the workbook, teachers examine their own assigned homework, and if possible, student answers. This helps the project be more meaningful and relevant.

Active learning also plays a significant role in the training. Teachers are actively involved throughout the project to develop meaningful work that can be used in their classrooms immediately. Active learning allows teachers to, "analyze, try out, and reflect on the new strategies" (Darling-Hammond, Hyler, & Gardner, 2017, p. 7). Incorporating

activities to involve teachers in the learning process is essential to maintaining engagement and maximizing understanding. Teachers are able to practice designing effective homework assignments, as well as come to a deeper understanding of when homework should be assigned.

Throughout the project, teachers utilize collaboration to effectively construct and deepen their understanding of the best practice regarding homework. Darling-Hammond, Hyler, and Gardner (2017) stated that, “collaboration can span a host of configurations- from one-on-one or small-group interactions to schoolwide collaboration to exchanges with other professionals beyond the school” (p. 9). Teachers have various opportunities during their training to collaborate with their peers in small groups and share with their other colleagues. In the second session and the end of the workbook, teachers share their results and bring ideas from their own classrooms. In this sense, student input is indirectly involved. It also provides an opportunity for teachers to discuss and learn with each other throughout the school day or in department meetings.

Modeling homework practice is another important role in the development of a strong professional development program. The training makes use of sample homework assignments to illustrate the different features being discussed. Modeling can “help teachers to have a vision of practice on which to anchor their own learning and growth” (Darling-Hammond, Hyler, & Gardner, 2017, p. 11). While instructional practices may not be very relevant to planning homework, planning forms, samples, and other examples serve the purpose of modeling.

Support plays some role in the professional development process; however, expert support may be limited. Teachers support each other through the learning process and

take good examples from colleagues' successes. Support is embedded in the reflective process during the later stages of the project. Teachers first explore and develop a strong understanding of homework improvement. Then they practice and experiment with their own ideas and learning. Later, teachers reflect and provide support for each other to further their understanding. Further meetings could be conducted as a school or by department to check-in and advance their practices even further. Darling-Hammond, Hyler, and Gardner (2017) stated that, "professional development models associated with gains in student learning frequently provide built-in time for teachers to think about, receive input on, and make changes to their practice by providing intentional time for feedback and/or reflection" (p. 14). This suggests the importance of reflection throughout the learning process, and not just at the end. During the first session and in the workbook, opportunities to share and reflect are given so that teachers can adequately process what they are learning and deepen their understanding.

Through these ideas, a meaningful and engaging professional development program was created to enhance teachers' understanding of the best way to promote positive homework use. Teachers are then equipped to determine when it is best to assign homework, and when it should not be assigned. They also were prepared to design meaningful homework that will achieve its aim, rather than provide little benefit.

### **Assessment**

The program's effectiveness is measured several ways. The first is through teachers' self-evaluation. Teachers are asked to examine their own homework practices and rate their effectiveness before and after the program. They are also asked to describe the process in which they decide on homework assignments. Improvement is seen if

teachers feel their homework is more successful at achieving learning objectives and if there is a deeper thought process involved in assigning homework. Teachers should be able to articulate ways that this program has helped address their understanding of the impact of homework on learning.

The second way the program will be assessed is through feedback from students. Teachers and administrators can ask students how they feel about homework assignments. The current feeling among many students is that homework is often busywork. This form of assessment is not very reliable on its own, but it can also be combined with a critical examination of homework assignments to see if they align with learning objectives.

### **Summary**

The project entailed the development of a professional development training program and workbook to address the impact of homework on learning and the potential negative consequences associated with homework. Teachers were engaged in a meaningful program to develop their understanding of the purpose of homework, factors that impact its success in achieving its aims, and the consequences of assigning homework. As a result, teachers were equipped with the knowledge necessary to make informed choices in their own classroom. The project follows suggestions by Darling-Hammond, Hyler, and Gardner (2017) in its design to ensure that it is an effective program that helps teachers succeed. The presentation is made up of two primary sessions: an initial instructional session followed by a reflective session. Between the sessions, teachers have adequate time to practice and experiment with their understanding. Further sessions could be conducted by department or by the school. The

workbook consists of two sections that mirror the flow of the presentations. Departments have an opportunity to expand on the ideas in the workbook as well. This could include further conversations, research, or changes in practice.

In Chapter 4, I reflect on the successes and challenges of the program. After sharing the workbook with fellow teachers I can prepare appropriate follow-up actions. I also gained insight into the areas that were most successful and developed ideas to expand upon that understanding.

## CHAPTER FOUR

### Conclusion

#### Overview

My project focuses on the design and implementation of homework. My research question is *how does homework impact learning in middle and high school?* Through my project, I share the findings of my research to explain the best practice for homework design and the potential consequences of homework. This chapter reflects on my learning experiences, the key sources for my research, the implications and limitations of the research project, suggestions for further research, and finally the process for sharing results. In this chapter, I will conclude my research project and reflect on the long process that culminated with a deeper understanding of homework and its impact on learning.

#### Learning

My project certainly was developed under interesting circumstances. Originally, my intention was to deliver a series of training sessions to my colleagues based on my research and literature review. My goal was to help them to establish the best practice for assigning and designing homework. At my school, a homework policy was not well established and many teachers were following their own system. I hoped that a well detailed presentation could help unify teachers around a common understanding of homework, and perhaps even influence the creation of a more substantial homework policy.

The first transformation occurred as I was starting to design my project. The new Head of Secondary presented his own perspective on homework, which dramatically contradicted my own research. In his presentation to the teachers, he outlined his beliefs



about homework and his intention to develop a homework policy that matched. His perspective was purely focused on academics, with no consideration for consequences or other factors. It seemed that he was very focused on quantity instead of quality and viewed more homework as better. Teachers were encouraged to share their own ideas and ask questions, but after a few tentative probing questions, I quickly came to the conclusion that he was not open to different perspectives. This aligned with my previous encounters with him and thus I was forced to reconsider my own approach. After discussing several options with my wife, parents, and my professor, I decided to try a less confrontational approach.

I felt that presenting to the school in a way that was true to my research would have been perceived as a challenge to his perspective, which is something I wanted to avoid. I felt that creating a workbook that reflected my research would be less confrontational and could be presented as merely a result of my research rather than a challenge to school policy. In conjunction with this workbook, I also developed a presentation that would follow the same sequence. In an ideal setting, the workbook would be completed alongside a presentation of the material. However, both were developed to be sufficient on their own.

The second transformation happened when my school shut down over the COVID-19 pandemic. Although stressful, this was less significant to the direction of my project since I had already decided that I would not be presenting my work in a training session, but rather distributing my workbook to those who were interested. The Malaysian government restricted movement to essential travel only in response to the pandemic, and as a result my workbook was delivered electronically to my colleagues.

To reflect this new format, I created a PDF document to make it as easy as possible for teachers to engage with my workbook. Once school returns to normal, physical copies could also be distributed.

I learned a lot through this experience of transformations. I learned to be flexible and how to present ideas through different mediums. As a result of the changes in my project, I may even have a better opportunity to share my research with a wider audience. Circumstances are constantly changing, and being adaptable is also an essential part of teaching. It was a good experience to respond to changing needs as my project developed; much in the same way that a teacher may respond to changing student needs in the classroom.

I also learned that it is important to consider audience and setting. While these are often considered in the classroom in specific ways, they are always subject to change. During the development of my project, my setting changed and there were small, but significant, changes in my audience. This impacted the way that my research could be presented and forced me to consider different methods.

During my literature review, I learned a lot about homework and adapted my own teaching practices as a result. My research made me far more conscious of the consequences of homework and the impact it could have on students' lives after school. I had been somewhat wary of using too much homework, but my research led me to be far more considered when designing and assigning homework. Although it wasn't a big part of my project, I also started to think about how homework could be a source of inequality. This is certainly an area where further research could be extremely beneficial.

## Reflecting on the Literature

I was able to find many resources that were beneficial to my understanding of how homework impacts learning, but there were a couple that stood out. In order to understand why homework was assigned, and to help teachers make positive choices, I utilized Van Voorhis (2004) as a framework. This source provided the ten purposes that homework was typically assigned for. It allowed me to structure the section of my literature review focused on the reasons behind homework. These ideas were supported by other sources, but typically tied back to this essential understanding.

Part of my literature review focused on how to ensure that homework was effective as possible. I made use of another significant source for this section, Vatterott (2010). This source helped me structure my explanation of how homework should be designed to ensure that it achieves its learning objectives. Other sources were again used to support this framework of homework design.

Finally, Kohn's *The Homework Myth* (2006) stood out because it helped me frame my understanding of the negative side of homework. This resource provided a lot of insight into the consequences of homework and helped direct my research as well as frame the counterargument for assigning too much homework. This source also exerted itself throughout my project because many of Kohn's ideas are subtly present in how other sources are presented. The primary way this manifested in my project was to question underlying assumptions about homework and encourage teachers to find alternative solutions. For example, if teachers believe that homework is important for developing self-discipline, what other ways could students develop this skill besides homework?

These three sources served as the primary framework for my literature review, and subsequently, my project. Many other sources were utilized to support this framework and to connect new ideas to my understanding.

### **Implications and Limitations**

The potential implications of my project are quite significant if the research is approached with an open mind. My project presents a strong case for the reduction or at least reconsideration of homework policies. It also can help to create an open discussion around homework design and usage. Teachers may utilize the research presented to modify their own homework assignments and create homework that is more effective. Teachers' actions are not always strictly controlled by school policy; many teachers have flexibility in how they design and make use of their homework. For these teachers, a deeper understanding of the best practice for homework design and the consequences of homework will help them to make more informed choices within the scope of their policies.

School leaders may choose to revise their policies based on the findings, but it is unlikely that one project will have such a significant impact. It may, however, spark further investigation into homework practices that eventually result in a change. Primarily, the limitations of this project is that it runs counter to many pre-existing understandings of homework, especially in my current setting in Malaysia. The research will likely be received with a great deal of skepticism and perhaps dismissal by some people, but others may be more receptive. This limitation is also due to the limited nature of the project. There is a vast array of research on the topic of homework, and the potential for local data collection that could help support, or challenge, my conclusions.

### **Future Research**

There is a large potential to expand the research presented in my project through further literature review and local data collection. Collecting detailed data from Malaysian students about their homework habits, time, other commitments, and perspectives would be a great way to supplement my research project. Teachers and parents could also contribute their perspectives. This data could be analyzed to determine if perspectives are aligned and if the teachers' intentions are coming to fruition. This data could be collected through surveys and through careful monitoring of homework and student results. There are many different factors that contribute to student performance which makes it hard to attribute results to one particular change. Additionally, the consequences of homework, such as stress, are often challenging to define because they are subjective. Thus, it is important to make use of a wide variety of resources and research to come to a conclusion with confidence. Schools and teachers should strive their best to consider all the elements of students' lives before determining how homework should be implemented in school.

It is recommended that school leaders consider the research presented in my project and reflect on the school's homework practices. It may be helpful to engage parents and students to communicate the school's understanding of homework, expectations of students, and expectations of parents. Improving communication regarding homework can help everyone to work together to make any assigned tasks more successful towards learning. It would also be worthwhile to work with teachers to improve their homework design so that each assignment achieves a learning objective. Teachers should be empowered to have flexibility in their approach to learning, but they

also can benefit from additional training and reflection. Overall, schools should take steps to ensure that homework is kept to a minimum so that students have time to engage in other activities and can maintain a healthy lifestyle.

It would also be worth considering how distance learning will impact the understanding of homework outline in this project. With the recent global pandemic, many schools have switched to distance learning. This may greatly impact the role of homework in the classroom among a variety of other changes to learning. Teachers should be encouraged to be receptive and open to student needs and perspectives. They should also take care to design meaningful homework since contact hours and the quality of that contact may be greatly reduced. There is a lot to learn with a switch to distance learning, but this gives an important opportunity to develop even better holistic strategies to teaching and learning.

## **Results**

As departments meet and discuss their ideas surrounding homework, they will be able to progress through the workbook together. Other individuals may also choose to work through the material on their own. Reflections and results will then be shared between colleagues through department meetings. I will also receive their responses and use them to follow up on any areas that remain unclear. Results will primarily be used to understand which further steps should be taken. If there is a positive response to my research and a general desire to take the project forward, then the presentations prepared could be delivered to the school or small groups within the school. If there are areas of research that need further study, then further research could be conducted to provide clarity and answer questions. The overall idea would be to use the results and feedback to

keep discussions about homework alive. It benefits the school and the students if this aspect of learning is carefully considered so that informed and deliberate choices can be made in relation to homework.

This project will benefit my fellow teachers, and the profession by encouraging educators to consider homework assignments more carefully, design them more intentionally, and reflect on their necessity. It could help teachers to develop better homework that will help students learn more effectively. It could also help students to live a more balanced life if their homework loads are reduced. Increasing knowledge and reflecting on our teaching practices is always beneficial.

### **Summary**

Chapter Four reflects on the research project, literature review, and the lessons learned throughout this experience. This project taught me a lot about being flexible to changing circumstances. It was important for me to be sensitive to the school's leadership and their perspective on homework when designing how I would share my material. As a result of these reflections, I moved from a seminar style presentation to a workbook that would be less challenging to existing homework policies. I also had to adapt to the changing circumstance related to the COVID-19 pandemic and a move to distance learning. These learning experiences were extremely valuable and will equip me with a skillset that will serve me well throughout my teaching career.

The essential sources for my project were, Van Voorhis (2004), Vatterott (2010), and Kohn (2006). These three sources provided a strong framework to tie all of the other research together. The other sources were, however, key to supporting and building on these ideas. While there is much to be learned from the research presented here, it could

be improved with more corroborating sources, especially any sources from studies in Asia. It could also be improved with local data collection and analysis. As the research stands, there is enough compelling evidence to reconsider and possibly revise homework policies to reflect a more conscientious understanding of the design and consequences of homework. Teachers and school leaders should take care to design homework to be as effective as possible towards achieving a learning object, and consider if other alternatives would be better suited.



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