Improving Secondary Students Homework Completion

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Abstract

The purpose of this study is to analyze the rate of completion of secondary student's homework assignments, comparing traditional paper/pencil and digital assignments. The measurement tool is a pre-score and post-score based on submission of weekly homework. The data used spanned two semesters, with four assignments from each of the semesters. The first semester assignments were pencil and paper and the second semester assignments were digital. Two US History classes of ninth graders (n = 62) were participants in the study. The mean number of assignments completed was significantly higher under the digital condition (Mean = 3.10, SD = 1.22) than under the traditional pencil and paper condition (Mean = 2.81, SD = 1.08) [t (61) = 2.04, p = .046]. . This study was timely considering the pandemic closing schools and the transition to distance learning. More intensive research and study into digital learning will be informative as schools move forward providing online instruction.

CHAPTER 1

INTRODUCTION

Homework assignments are an ordinary component for most secondary students' school routines. Homework defined, is work assigned to a student completed outside of the classroom. Different types of homework assignments include but are not limited to, several math problems to finish, a review sheet to complete for a test or constructing a writing piece that answers a writing prompt. One definition states, "Homework was clearly defined as assignments that require time outside the classroom to reinforce and/or enhance instruction" (Watkins & Stevens, 2013, p. 81). This practice has been in place in various capacities for decades. There are many other types of homework, as the list is infinite. Requirements for teachers to provide homework, and student's requirement to complete it is considered the "norm" in many high schools as part of their class grade in most subjects.

Many educational leaders believe completing homework is vital to higher learning levels and student outcomes. There is the added benefit that homework can provide by incorporating increased discipline in students, as self-monitoring is part of the growing up process and being accountable for deadlines. In addition, "Studies that compared students who were assigned homework against students with no homework revealed that completing homework favored academic achievement" (Rosario, Cunha, Nunes, Moreira, Nunez, & Xu, 2018, p. 93). The competition for seats in colleges and universities are so rigorous that work provided during the school day does not adequately prepare students for the collegial expectations for post-high school programs.

Researchers demonstrate that homework indeed increases academic achievement. "Studies of middle school students and college students similarly found that homework improves students' performance on math and other tests as well as first–semester grade point averages (GPA)"

(Kalenkoski & Pabilonia, 2017, p. 45). Not only are students competing for coveted spots in universities, their competition is also with peers from other countries. With these additional scholars vying for their place in a university, educational leaders and motivated parents promote heavy homework loads and advanced placement courses in order to prepare the student to compete for these few seats. For these reasons, it has been imperative for educators to provide rigorous tasks for students to continue with their studies outside of the traditional classroom.

Teachers have used a wide variety of assignments in order to meet the learning objectives of a skill, task, or course. Special programs such as the International Baccalaureate (IB) Program has been widely heralded as a distinguished educational program, universally recognized for providing the necessary foundation for success beyond the high school level. This course load provides intense reading and writing coupled with student and teacher reflections. The expectation for this program is students spend a large portion of time outside of class to complete the workload aligned with the IB program.

The benefits of homework have been well-documented evidenced by large bodies of research conducted using broad ranges of students from case studies and other large studies using all classroom settings, grade levels, subject matter, schools, districts, and regions. There is evidence to support that homework does reinforce academic outcomes for students. There is also a counter argument that homework has its own pitfalls. However, many students do not complete homework for a variety of reasons. The consequences for not completing homework can be devastating to a student's percentage in a class.

There is a lack of secondary students completing homework. One theme surrounding students who were likely or not to complete homework revealed a glaring disparity. This finding was, "Access to technology is essential to educational success as well as workforce and community

development. However geographical, income-based, and racial/ethnic disparities in access persist"
(Moore & Vitale, 2018, p. 2). This researcher became interested in the topic of the lack of
homework completion as she transitioned back into teaching high school, from six prior years in the
middle grades. Many of her students did not complete homework as assigned and gave no rationale
as to why they chose not to submit it. There were always "steady students" who completed
homework and submitted it on time. However, many of the average to above average student's lack
of regard for turning in assignments became a focus for this researcher.

Another reason given for student refusal to complete homework may be due to their
emotional makeup. The balance between social and academic engagement and use of their time
outside of the classroom created an internal conflict for students, evidenced by previous studies. In
addition, the researcher discovered many students felt pressure to perform, causing anxiety and
substandard performance on homework assignments. *"It's not surprising that it becomes a source of
complaint and friction between home and school more often than other teaching activities"* (Xu,
2012, p. 171). The consequences for not completing homework negatively affects student's grades.
The poor grades affect their ability to gain entrance into certain colleges and universities. In
addition, the refusal to complete homework caused friction in the home between parents/guardians
and the student.

<div align="center">**Statement of Problem**</div>

The purpose of the study is to examine the completion rate of digital homework assignments
as compared to paper/pencil homework within two ninth grade US History II classes.

Hypothesis

There will be a null hypothesis for history students, with no significant difference in homework completion rates between the baseline paper and pencil homework and the intervention of digital assignments.

Operational Definitions

- Completion Rate- The number of assignments completed by each student; there were four assignments under each condition. Students receive credit if more than three quarters of their work is complete. An assignment was credited if it had spelling or grammar errors as long as the error did not interfere with the understanding their intended meaning. Students with limited ability were given modified grading standards. For students with IEP's, this means they could complete half the assignment and receive full credit. Late assignments are also counted as complete in both baseline and intervention rate.
- Digital Assignment- Weekly Google Classroom assignment
- Paper/Pencil Assignment- Traditional notebook paper assignment collected weekly in class

CHAPTER II

LITERATURE REVIEW

The purpose of this literature review is to examine if digital homework assignments increase homework completion rates for secondary students. Section one outlines the definition and benefits of homework. Section two discusses the reason students fail to complete their assignments, as well as the variety of homework types provided to students. Section three discusses the cultural aspects of assigning homework, and challenges with cultural issues as well as student attitudes towards completing homework. Section four explains digital platforms and the tools available to provide instruction online.

Definition of Homework

Traditionally, homework is schoolwork completed outside of the classroom. It can take many shapes and varying degrees of difficulty. One definition states, "Homework was clearly defined as assignments that require time outside the classroom to reinforce and/or enhance instruction" (Watkins & Stevens, 2013, p. 81). There have been students as young as pre-K assigned homework. However, as the student moves through the grades and begins their secondary schooling, the homework assigned can become quite labor intensive. The variety of assignments and due dates vary between grades, school district policies, and teacher preferences. Incorporating technology to deliver homework assignments has also become a part of the homework definition.

The lack of homework completion by secondary students is a timeless, ongoing issue. Many lenses attempt to bring clarity to this issue through analysis of student apathy and motivation. Analyzing the issue requires many angles on an ongoing exploration as to why the problem of completing homework continues. Where is the breakdown? What are the solutions? The crux of this

paper is not to ultimately determine whether homework is relevant to academic increases, or if it stymies the student from having a life free from interfering time demands on leisure activities. However, determining the nature of the problem and analyzing a wide body of texts surrounding this subject explores these basic questions in order to shape the background for identifying the roots of the issue. Variables among the homework assignments provided are numerous. There are many different contents, subjects, and levels within the educational system. There are students identified as special needs that require their own differentiated instruction, and may be unable to complete any homework even with the best supports at home, depending upon their disability. Further, teachers may be able to use their own discretion to assign work that is a complement to class work, or have students research a topic of choice, visit an institution and write a reflection, and so forth.

The types of homework assigned at the secondary level is limitless. Although this is not a new revelation, homework delivery has evolved by way of technological advancements. As researchers note, "Because delivery of school assignments and other learning material has been migrating to online learning environments, use of the Internet for learning has become obligatory for high school students" (Naydanova, Beal, & Doty, 2017, p. 444). There is a disparity amongst those with and without technological access, evidenced between rural and urban communities, and as economic disparities between affluent and impoverished populations. Regardless of having the access to technology, whether it is due to poverty, the failure to complete homework by secondary students is a persistent problem.

Benefits of Homework

An important study about the purpose of assigning homework states that it is twofold. "There are two main reasons teachers assign homework. They are to review concepts taught in the

classroom, and to prepare the student with videos or other material prior to learning that concept in the classroom" (Maltese, Hai, & Fan, 2012, p.54). To support this claim, another study suggests that homework develops study skills, student responsibility, and communication skills. The consensus appears to reveal teachers assign homework for a variety of reasons. They include academic and social skill practice. It can also provide extra practice on covered material and help student's master skills that are still developing. Perhaps one can infer here that completing homework not only provides practice on academic skills, but that this may include measurable and immeasurable positive outcomes.

Researchers demonstrate that homework indeed increases academic achievement. "Studies of middle school students and college students similarly found that homework improves students' performance on math and other tests as well as first–semester grade point averages (GPA)" (Kalenkoski & Pabilonia, 2017, p. 45). Another study conducted in a rural Illinois district revealed several themes surrounding meaningful and beneficial homework assignments. They provided a summary that purports that when students have choice in their assignments at home, they are far more likely to complete them than the assignments designed as busy work. "Student choice", therefore, becomes key by engaging learners to complete homework. When students have a say in their learning, and have interesting assignments, improvements in the rates of homework from secondary students rise.

Finally, Watkins et al. (2013) attempted to determine just who does benefit from homework by asking, "Does homework really benefit anyone?" (p. 80). The study used surveys to gather data, concluding that the value of homework ranges from *being very relevant to useless*. They did find there was some benefit to completing homework. However, they found no consensus that is clear on

whether or not and *to what extent* the assigning of homework and its impact of homework assignments have on learning outcomes.

Resistance to and Failure to Complete Homework

Across America, teachers report the lack of homework completion by secondary students. Why do many students choose not to complete their homework? Many studies have tried to determine the answer to this, using a multitude of measures. However, none of these studies has proven the fail-safe answer in identifying exactly why there is such resistance to secondary homework completion. It just begs further investigation. Does this failure to complete homework originate from students, teachers, the district, or parents? The literature reveals there are various reasons secondary students fail to complete their homework.

One theme surrounding students who are likely or not to complete homework have revealed a glaring disparity. This finding is, "Access to technology is essential to educational success as well as workforce and community development. However geographical, income-based, and racial/ethnic disparities in access persist" (Moore & Vitale, 2018, p. 2). Further, one other issue that could prove important as to why students lack of homework completion is due to the "digital gap". The authors go on to support this lack of digital access affects homework completion by stating, "The digital divide has also been referred to as the "homework gap," due to the challenges that students in technology-deficient circumstances face when trying to do their homework. This gap continues to widen as teachers incorporate internet-based learning into their daily curricula" (Moore & Vitale, 2018, p. 2). Delivering content across all subject matters has created unique types of homework assignment opportunities. There are indicators observed which help shape the narrative as to the reluctance for completing homework and the motivation and lack thereof for homework completion.

More research further cements the ongoing issue that motivation to complete homework is lacking. Dr. Xu has spent decades researching many educational issues in conjunction with Chinese and American universities and many co-researchers. He is widely published with numerous articles with a wide variety of topics related to these very issues. Regarding homework apathy, he writes richly about home front friction surrounding homework completion. This particular study relates to the cultural connections related to the resistance to/failure to complete homework and the many competing interests students face when choosing whether to complete or not complete homework. *"*Homework often takes place amidst the pull of other multiple competing activities after school and it evokes unpleasant emotional responses among many children" (Xu, 2012, p. 171). The takeaway is when students are not interested in the tasks it is a major cause of friction for the student, family, and educator. Even with advances in delivery methods, these new platforms for engaging students are not solving the homework dilemma. Online academic tasks are not capturing students motivation to complete assignments.

A study published examined several factors about who is assigned homework, the rate of homework completion, and the difficulties associated with completing homework. Results for students included both students with and without disabilities, from secondary grade levels. "Middle and high school students' rate of consistent homework completion is low. Approximately 28% of average-achieving students without disabilities and 56% of students with learning disabilities have problems completing their homework" (Merriman, Coding, Tryon, & Minami, 2016, p. 457). This study concludes that regardless of intellectual ability and disability, student's failure to complete homework is unrelated to intellectual ability.

Another study analyzed the parental involvement in elementary, middle, and high school. The authors provide insight into their findings, stating, "Several studies have found that the amount

of parental involvement declines as children age. Others have found that some aspects of parental involvement, such as helping with homework is beneficial when children are younger but is related to negative outcomes as children in secondary school" (Duppong - Hurley, Lambert, January, & D'Angelo, p. 947-948).   Perhaps this occurs because parents believe students should take their own initiative to complete assignments, demonstrate discipline and responsibility. This is part of a student's ability to become more self-aware of how their grades and behaviors affect their overall life, future goals, and learning. By parents stepping back from monitoring homework, the study reveals homework completion declines. The conclusion here may be that if parents are continually involved in monitoring homework completion through secondary school, students will be more apt to complete it.

Reasons for Assigning Homework

There are differing views for assigning homework. The differing views come from all stakeholders. Some research findings suggest students not be given homework, as this time is important for social activities and providing more rest and family time that is equally important to high academics. They assert that pushing students too hard creates stressed out youth. They suggest balance is needed to allow students personal time instead of extending the school day. Another reason homework is given can be to complete an assignment that was not finished during regular class time. As mentioned above, two ways that homework is used is to prepare for a class or to practice concepts for mastery. In addition, as previously stated, some view homework at the secondary level as vital in post-secondary educational pursuits.

Moreover, "Studies that compared students who were assigned homework against students with no homework revealed that completing homework favored academic achievement" (Rosario et

al., 2018, p. 93). After assigning this homework, scores increased and mastery of math concepts

reported to be higher than students who did not complete homework. The authors stated there are

teachers mandated by their districts to assign curriculum-based instruction, and did not perceive this

mandated model as effective as they can assign homework of their own choice. This is an

unintended discovery by the researchers.

Findings conclude parents expect homework assignments to gain advantage over peers.

"Homework is a powerful tradition, and many hold assumptions about its capacity to help students

get ahead and ensure America's status in a competitive global economy" (Galloway, Conner, &

Pope, 2013, p. 491). It seems apparent from this standpoint that social forces are still siding with the

older notion that competition among students, global positioning, and parental influences seek to

keep homework an active part of a secondary student's schedule. However, homework completion

from secondary students remains an ongoing problem.

Cultural Implications

When addressing cultural aspects of homework completion, socioeconomic status plays a

part in positive homework completion in one sample study. Homework that is too difficult for

immigrant children will not be completed. Supports must be in place in to assist students to be

successful. "Educators of migrant and immigrant families benefit their students when informed of

homework practices that help students acquire the knowledge and skills necessary" (Bang, p. 5).

Another study analyzed ten high-performing high schools with upper middle-class

communities. The students had on average three hours of nightly homework. "High achieving

parents of these students held beliefs that homework was important to gain an academic edge over

peers" (Galloway et al., p. 490). Perhaps in high performing schools the homes are better suited to

provide consistent support and oversight in order for students to complete homework. It could be, too, that parents are well equipped in structured and higher socioeconomically successful homes to assist students with the work itself as well as have no limitations on technology that provides greater learning opportunities. Considering the high academic level of specific classes such as advanced placement courses, the International Baccalaureate program, and high-level math and science courses, parents may have the requisite skills to better able in assisting with homework help.

A study completed compared American students with Russian students. Correlation of two topics compared the use of Internet for self-learning with teacher-mandated learning. Of the two data sets, both sets of students preferred Internet use for self-learning, i.e. "interest learning" over mandated lessons. "These opportunities make it possible for teachers to cover more course-related material at a faster pace, increase students' participation, and provide instant feedback" (Naydanova et al, 2018, p, 445). These findings indicate that students did prefer learning by self-exploration or "choice" rather than structured assignments, and teacher satisfaction was good. The teacher's satisfaction came from pacing of the course. The students reported greater emotional effects of having choice and freedom to explore on their own schedules.

Attitudes about Homework

Rosario et al. (2018) explain that students in the adolescent years need support to complete their homework assignments. Their findings showed that, "Students between the ages of 9-16 years old reported having a more negative attitude and showed less engagement in homework than younger students" (p. 93). In addition to the older students needing assistance as well as the elementary students, attitudes were not good for secondary students by the data analyzed from high performing schools. Galloway et al. suggest, "Many students in these upper middle class schools

describe schoolwork as dominating their day. These students report, "doing school", and express

willingness to sacrifice their health and academic integrity in order to successfully complete their

work in to maintain or increase their achievement status." The article further explores the degrees to

which students reported higher instances of stress and a greater lack of well-being.

In accordance with this finding of negative stress and secondary students, another study

determined that negative emotional experiences accompanied with boredom were the most reported

feelings during homework completion. "Across the spectrum of studies cited, many secondary

students dread homework and even become stressed by it" (Lipnevich, MacCann, Bertling, Naemi,

& Roberts, 2012, p. 388). They sampled across all socioeconomic levels, genders, and population

segments. Attitudes towards homework appear to be low no matter the demographic observed.

Digital Interventions

New platforms developed and adopted by school districts offer efficient and modern modes

of communicating, such as system-wide announcements, regular parent communication via email

and voicemail, and assigning a variety of digital homework. There are many to choose from,

including Edmodo, Moodle, Gaggle, Google Drive, Blackboard, Google Classroom, etc. Of

particular interest to understand how this technology affects academic outcomes is one recent study

by Hallatt, Huss, and Unsbee (2017). They sampled a group of sixth-twelfth graders on their

perceptions regarding traditional and digital online submission of schoolwork. At the time of their

study, there was limited research done on what the effects of technology and digital platforms had on

student completion of homework versus traditional homework practices.

One intervention conducted centered on group coaching of both secondary students with and

without disabilities. These researchers favored homework as necessary to improve academic

outcomes. However, their results indicated homework completion was low. According to Merriman et al, (2015), "Providing homework support after school is a common approach to address school wide difficulties with homework completion" (p. 458). The authors add there are several important themes that must be in place to improve homework completion. These include access to help at home, access to technology, and motivation. In addition, they agree that time must be allocated for homework completion in a structured, distraction-free area.

Summary of Sections

Homework comes in a variety of forms, in that both traditional and digital forms are the norm in preK-12 settings throughout the nation. Benefits to homework include preparing students for their college and career activities, as well as improving self-discipline, and practicing problems outside of class to understand a concept more deeply. There has been some explanations provided as to why secondary students resist homework. These reasons range from a lack of motivation to a lack of technology, and may include the inability of a student to have assistance outside of class. Many districts require teachers to assign homework. Teachers often use their own preference as to what and how often they assign homework. There is disparity presented in this paper with respect to native and nonnative student's ability to complete homework as well as family expectations regarding how much homework is required to compete in post-secondary settings. It is clear that nonnative speakers and immigrant families struggle to meet the homework requirements. In addition, higher socioeconomic-placed families expect their student to have nightly homework assigned. These two competing perspectives can be difficult for a teacher to apply the homework piece effectively and equitably to meet parental expectations.

Similarly, attitudes range about completing homework, depending upon the person's opinion. Many teachers must assign homework, and some teachers report that homework does provide

needed practice to prepare students for furthering student goals. Students, on the other hand, often

feel pressured to perform, causing some to have anxiety. The balance between work and home-life

requires students to monitor their own time. This self-discipline is easier for some students than

others. Disadvantaged students often struggle in completing homework explained above. When

students from Russia were given free choice of homework assignments, positive feedback resulted

providing insight into how teachers can better create homework assignments. In addition, digital

assignments, although much easier today to provide did not necessarily motivate students to

complete their homework. Some students reported lack of devices and language barriers as a

continued problem with digital homework assignments.

CHAPTER 3

METHODS

Design

The goal of this quasi-experimental study was to determine if a weekly digital homework assignment as an intervention would have a positive impact on student completion rates with two US History II ninth grade classrooms. Students served as their own controls. There were four assignments in baseline and four assignments in intervention conditions. The independent variable which was the form of homework assignment—traditional pencil and paper or digital.   The dependent variable was work completion out of four assignments. Work is complete if more three quarters of it completed. Students received full credit if it is late. Students were not penalized for spelling and grammar errors. Both baseline and intervention assignments used the same reading and writing strategy. Technology devices for at-home use at the time of the study were not provided.

Participants

The school is an urban high school in the Washington, D.C. suburbs. The students come from a variety of feeder schools in a Maryland district. The total population in 2019-2020 was 996 students. The racial makeup is 84% African American, 12% Latino, and 2% Caucasian, and 1% Other Races. This group consist of mixed-race, Pacific Islander, Native American, and Asian. The total student population included 193 special needs students with either an IEP or a 504 Plan. There were 62 participants from two ninth grade US History classes. Included in the study are 29 females and 33 males. In this study, there were six students with specialized plans. One student was hard of hearing. Three students had ADHD. One student had a Specific Learning Disability, and one had Autism, considered "high-functioning".

The study conducted took place in a large and diverse urban area. There are numerous programs at this high school, including a Fire Cadet Academy, Culinary Arts Academy, Computer Technology Academy, Cosmetology Academy, Junior Reserve Officer Training Corp, and Future Farmers of America. In addition to the specialty programs, the school offers 28 sports teams, including football, basketball, baseball, softball, swimming, golf, tennis, lacrosse, track and more. In this district, the school performs at a higher than average academic rate. The principal is motivated with College and Career Readiness goals put in place with intentions for scholars to be ready for work or post high school educational opportunities.

Instrument

Homework materials assigned related to the topics of study during the school day. The topics during baseline were the Movement Westward, Civil War Amendments, The Rise of Cities, and the Rise of Big Business. The passage aligned with the weekly content focus. The students read several sections from the textbook and answered three short answer prompts. The researcher used the section review as the instrument, and selected three prompts as short answer for student responses. The assignment choice is from the curriculum-pacing guide, as mandatory content for students to learn. Both the baseline and intervention assignments were required content limits for students.

During the intervention period, students studied World War II, the Cold War, and the breakup of the former Soviet Empire into 15 autonomous regions. The online assignments consist of reading materials, from the section reviews, with a question and answer component. The four assignments were in chronological order. The passage was ideally suited to this design as questions

posted at the end of the passage are in order of the passage. A student did not have to backtrack too far to find the correct responses.

Based on experience, the researcher was confident that the level of rigor was suitable for successful completion independently under both conditions. The selection of the material was important as it provided all students with work that was easily completed with little to no difficulty. The paper and pencil assignments and the digital assignments can be completed in one hour.

The baseline data was captured using SchoolMax, online gradebook. Completion rates recorded on an Excel spreadsheet provided the intervention data was captured weekly. There is no reliability or validity data related to the determination of whether assignments were completed.

Procedure

The school system mandates teachers to assign at least two homework assignments per quarter. The curriculum in the study for the baseline and intervention period came from the same publisher, Houghton Mifflin Harcourt, 2018. The book, "American History, Reconstruction to the Present" provided both the paper and digital material for students. The intervention material is a continuation of the curriculum from the baseline. Students sometimes had the opportunity to work on homework assignments during class time under both conditions.

The baseline data used was from the first semester marking period. Students' homework assignments consisted of four paper and pencil homework assignments, assigned at random intervals. Each student was responsible for completing the assignment outside of class, and returning it to the researcher that same week. The rate of homework completion in the first semester was low. Often this had been the case due to the holiday breaks in the calendar. The second quarter moves faster than other quarters due to extended absences of in-class time.

The second semester digital homework assignments were the intervention. This intervention began the first week of February and lasted four consecutive weeks. The continuity allowed the researcher to provide a structured assignment with the same reading and writing strategy each week. The procedures for assigning and collecting homework assignments were explained so there were no misconceptions. Students were able to access their homework assignment on Monday. The completed homework assignments were due by Friday of that same week. All intervention assignments were digital, and assigned and collected on the Google Classroom platform. The students had been using Google Classroom from the beginning of the school year, as some assignments were provided on this platform. Students were familiar with this platform beginning in the middle grades within the county. The students accessed the homework assignment outside of class, completed it, and submitted it back to the online platform by Friday afternoon.

The design of the intervention took into account student absences. For the intervention, if a student is absent, they are able to log into their Google Classroom account to access the material and submit it without having to be physically in the classroom to obtain the intervention. Therefore, student absences would not affect data collection nor disrupt the methods in place to access the digital homework assignments. If a student is absent for the paper and pencil assignment, they could come to class and pick up a photocopy of the material or carry a textbook home. The mean number of completed assignments out of four from the baseline and intervention period is compared by a non-independent samples t-test.

CHAPTER IV

Homework completion rates were low for the first part of the school year, and by the semester end in January, many students were not completing homework. The purpose of this study was to determine if homework completion rates for four assignments would improve if the format were digital rather than traditional pencil and paper.

The independent variable was the form of homework assignment—traditional pencil and paper or digital.   The dependent variable was work completion out of four assignments. A nonindependent samples t-test was conducted to compare completion rates. The mean number of assignments completed was significantly higher under the digital condition (Mean = 3.10, SD = 1.22) than under the traditional pencil and paper condition (Mean = 2.81, SD = 1.08) [t(61) = 2.04, p = .046]. Please see Table 1. Consequently, the null hypothesis was rejected.

Table 1.

Means, Standard Deviations, and t-statistic for Homework Completion under Traditional and Digital Conditions

Condition	Mean	SD	t-statistic
Traditional	2.81	1.08	2.04*
Computer Digital	3.10	1.22	

N =62

* Significant at $p \leq .05$

CHAPTER V

DISCUSSION

This study examined if providing one digital weekly homework assignment increased student completion rates in two US History II ninth grade classes. The researcher developed a weekly digital homework assignment as the intervention to monitor homework completion rates for her two US History II classes. The data show the students completed more digital assignments than traditional paper/pencil assignments. There is no information collected such as a student survey that explains the reason for the increased completion rates of the subjects.

Implications of Results

In this study, an increase in student submission rates with the intervention did show an increase in completion rates with the subjects. There could be a wide variety of reasons for this increase. Perhaps at the semester point, when grades at the half-year mark shows student grades need improvement, they completed more assignments. Perhaps grades reviewed by parents and guardians motivated more close monitoring of homework completion. Another possibility for increased completion rates is the intervention remained constant, thus students were prepared to complete their weekly assignment. With students allowed the five- day window to complete the intervention, rates may have increased. With this timetable, students could use their own time management to finish their assignment. Motivation to achieve good grades can produce higher homework completion rates.

Many of the students submitted their assignment with significant errors. It is evident to the researcher that many students do not use the "tools" program for grammar and spelling checks built into the platform and document assistance. The researcher did not count the mistakes against the student and gave the student full credit for their submission. Many more students did not write their

answers in complete sentences. The writing mistakes did not count against the student's grade.

Only the measurement of the completion rate was the focus of this intervention. However, an

implication of this observation is that providing a digital option for completing homework does not

necessarily improve quality.

Theoretical Implications

Multiple studies conclude secondary students resist homework completion. There is no

universal reason for this; rather, a host of reasons attribute to this dismal statistic. When surveying

parents, teachers, educational leaders, many agree that homework reinforces important skills

pertinent to post-secondary education and workforce skills. Students' homework completion rates,

even under the best environments of home and socioeconomic factors, produce tepid results.

Further, students with limited supports, limited language fluency, lack of technological devices, and

lack of assistance in the home have an even more challenging time completing homework at the

secondary level.

Under the best of circumstances, students have acquired enough self-discipline to manage

their time between school responsibilities and home-life activities. However, many students' lack of

motivation to complete homework in many studies suggest there is more to completing homework

than just discipline. Students report that too much work is required in some schools, but the parents

of these students do prefer the heavy workload as preparation for their future endeavors. The apathy

towards completing homework reported among many studies also introduces social and emotional

issues such as anxiety, with some students feeling overwhelmed. Mental health factors, therefore,

play a role in whether students produce their homework assignments.

One particular study explained students' feelings towards choice and freedom in their

homework assignments. When given the opportunity to research a topic and report or write about it,

this strategy shows increases in student cooperation and completion of homework. Instead of being dictated to by completing work within specific parameters, a student was more likely to complete a homework task when given flexibility to choose their own material and responded more favorably to the homework experience.

When requiring all students in a given class to produce homework, the teacher must be responsive to the limitations of certain populations. These populations include special needs students, with some students in mainstream classes solely for social reasons. Specifically designed goals help the student to meet these social skills, and the expectation for them to perform at grade level may not be applicable. For this reason, a teacher must be able to allow the student to access the curriculum using accommodations and modifications put into place specific to their learning plans. Content does not change for this population, but the process or product expected with modifications is in alignment with state standards. It is critical for teachers to have the training or the assistance of a special educator to make the necessary adjustments to the homework assignment to allow for student mastery.

Immigrant students or students with limited language ability have a particularly hard time completing homework in many instances. Often times, due to impoverished living standards, there is no technology available in the home for a student to access digital assignments. In addition, students often do not understand the expectations on them, or even be able to understand the material as written. These same students may also have little to no assistance from a parent or guardian to guide them through the activity. This creates a losing situation for the student. This puts them at unfair advantage to their fluent peers.

The researcher observes this in fact puts the immigrant student further and further behind.

This can produce anxiety, decrease motivation, and likely affect the student's self-esteem. Teacher training must include how to modify homework assignments for newly arrived students or students that have a limitation in the home. In addition, counselors and pupil personnel workers must survey this population with the use of translators, if needed, in order for the teacher to prepare materials a student can complete with limited home assistance.

Threats to the Validity

Threats to the validity of the study include alternative explanations as to why homework completion increased. These are threats to internal validity. Students' homework completion may have differed because of the time of the year. The first semester of the year has many holiday breaks so the flow is less continuous. Many students are out of class the day before and after a holiday break. This poses a threat to validity. Perhaps at the semester point, students changed their homework habits as they realized that with more effort and motivation to complete their homework, their grades would improve. Some parents take care in monitoring grades at the half-year mark, so improvements in the second half of the year due to parental involvement is a possibility. This study started shortly after the second semester started, which is often a point when students know they have a clean slate with respect to grades and may feel the need to stay on top of their assignments. Ninth grades students have reached the first semester milestone of a big transition to high school and may be able to self-regulate and manage multiple classes with greater ease. This motivation to achieve good grades can produce higher homework completion

Another validity concern was homework assignments were more predictable under the digital condition as they were assigned over four consecutive weeks, with the students aware of this schedule. Students also consistently had 5 days to complete each assignment without having to

physically hold and keep track of a paper assignment. Losing the paper and pencil assignment was not a concern during the intervention.

There are external threats to the validity of this study due to the interference and disruption to school routines with the onset of the COVID-19 pandemic. In February, student's attendance rates slightly dipped as news of health and safety in public spaces did affect some attendance rates. However, most students' attendance remained constant, and with the intervention transmitted digitally, school routines continued as planned. Wintertime is also a time when students catch colds and attendance can naturally drop. The attendance variation can threaten the validity of the study due to the naturally occurring cold season or the emerging news of the public health threat.

As the media began more news cycles surrounding the impending infection of US citizens, a new tone emerged in classrooms. This researcher spent a better portion some days explaining and translating the news in order for students to understand the widespread health risks and emerging information from abroad, concerning the disease. Since the news of the pandemic began affecting classroom discussions, there were many students fearful of COVID affecting our school community and their homes. However, all four digital homework assignments occurred before the school closure in mid-March.

Connections to Previous Studies/Existing Literature

The results of this study compare with other studies in that homework completion rates remain low for secondary students. The wide body of evidence conducted in recent time shows similar and dismal results. Many of these studies use a specific variable to measure this phenomenon. Lack of motivation is one key factor as to why students do not complete homework. According to Lipnevich et al. (2012), "The levels of affect, arousal, and motivation reported by students were significantly more negative during homework than during other activities, including

work performed in the classroom" (p. 388). This anxiety and emotional disturbance can have negative effects upon students. Parents can assist students even into secondary levels to monitor homework completion. Although most parents could assume their student is capable of self-monitoring, the research shows this just is not always the case.

Teachers can also make engaging assignments that offer more freedom to work on topics to demonstrate their own understanding in multiple ways. Many students reported in studies they were far more engaged in an activity if they had some choice in the matter. Rosario et al. (2018), explain that students in the adolescent years need support to complete their homework assignments. This study ties two themes together. The need for parent involvement coupled with more engagement could increase homework completion. Positive attitudes toward homework completion may result from teachers creating more engaging assignments that offer students choice.

Implications for Future Research

In this new era of online learning, there will be best practices that emerge as studies conducted as to what good instruction can look like for all students, and districts supplying technology devices and WI-FI to underserved populations. More research regarding best practices for digital implementation of homework as well as regular instruction for secondary students is imminent due to the COVID pandemic. Almost overnight education transitioned to online platforms with little to no teacher preparations as states closed school districts. Studies that will benefit stakeholders will include how much work is online only, to what extent do school districts mandate assignments, if standardized testing will be affected by this shift in educational delivery.

There is a plethora of opportunities for researchers to implement studies on both small and large scale, using surveys, case studies, and grades to determine how digital learning compared to traditional methods. Many schools may remain closed in the fall of school year 2020, either

temporarily or intermittently to students and staff, or operating on a hybrid model. These models could involve secondary students coming into the school building on a rotating basis, or part of the day, or for math and science courses exclusively. These school closures can provide researchers with decisive data regarding online submissions, as attendance factors would not affect their results. In addition, there would not be assemblies, counseling sessions when students are not in class to receive instructions for online work, or other reasons students are not in class on a given day. Deciding on what variable(s) to study and implementing studies designed to correlate online learning with student outcomes, which could offer useful insight into what methods present positive increases in homework completion rates.

Conclusion

The researcher discovered homework apathy is very common amongst secondary students. Most students dislike homework, regardless of income status, race, or aptitude. With some students, it produces emotional issues and anxiety that make the act of completing homework a very miserable experience. Sometimes this stress relates to performance anxiety. This issue relates to motivation, which is also a key factor in homework completion rates. This study examined whether high school students were more likely to complete and submit digital homework assignments as compared to traditional pencil and paper assignments. Students completed significantly more homework in the digital format. Observations also suggested that the students might have benefitted from the established routine and explicitly stated expectations under the digital condition. Future research will be important to further examine the efficacy of digital assignments, particularly as education is becoming increasingly technologically- based. It is critical for students to complete homework to improve certain skills, to develop self-discipline, to explore topics of interest that enhance the contents addressed in class, and to prepare for the heavy workloads of post-secondary endeavors.

Appendix: Sample response from male student

1
Preparation for war
- Creating new
- Creating allies
- Defending the Borders

2

George Marshall- An american soldier who became the Chief of Staff under President FDR
WAAC- Womens branch of the United States Army
WAR Production Board- an government agency that supervised war production
Office of price Adminstration- Emergency Manegment for the US government
Rationing- The distribution of resources and goods
A. A.Phillip Randolph- an American labor unionist, civil rights activist, and socialist politician.
James Farmer- Leader of the civil rights movement and a civil rights activist
Congress of Racial Equality- role for African Americans in the Civil Rights Movement.
Internment- incarceration on the west interior of Japenese Americans.
Japanese American Citizens League- an Asian American civil rights charity

3

They wartime mobilization by using government programs to aid the economy such as the Office of Price Administration and inflation. It helped the production and the establishment of materials a lot better. A lot of people got the materials they needed to hold out in wartime.

REFERENCES

Bang, H. J. (2012). Promising homework practices: Teachers' perspectives on making

homework work for newcomer immigrant students. *High School Journal*, 95(2), 3–31.

Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&

eric&AN=EJ960346.

Duppong Hurley, K., Lambert, M. C., January, S. A., & Huscroft D'Angelo, J. (2017). Confirmatory

factor analyses comparing parental involvement frameworks with secondary students.

Psychology in the Schools, 54(9), 947–964. https://doi-

org.goucher.idm.oclc.org/10.1002/pits.22039

Galloway, M., Conner, J., & Pope, D. (2013). Nonacademic effects of homework in privileged,

high-performing high schools. *Journal of Experimental Education*, 81(4), 490–510.

Hallatt, D., Huss, M. A., Unsbee, C., Al-Bataineh, A., & Chumpavan, S. (2017). Homework

completion: perceptions and comparisons of 6Th-12Th grade students using traditional and

digital submission. *International Journal of Arts & Sciences*, 10(1), 197–212.

Kalenkoski, C. M., & Pabilonia, S. W. (2017). Does high school homework increase academic

achievement? *Education Economics*, 25(1), 45–59.

Lipnevich, A. A., MacCann, C., Bertling, J. P., Naemi, B., & Roberts, R. D. (2012). Emotional

reactions toward school situations: relationships with academic outcomes. *Journal of*

Psychoeducational Assessment, 30(4), 387–401.

Merriman, D., Codding, R. S., Tryon, G. S., & Minami, T. (2016). The effects of group coaching on the homework problems experienced by secondary students with and without disabilities. *Psychology in the Schools*, 53(5), 457–470.

Moore, R., Vitale, D., & ACT Center for Equity in Learning. (2018). High school students' access to and use of technology at home and in school. *Insights in Education and Work. ACT, Inc. ACT, Inc.*

Maltese, A. V., Tai, R. H., & Fan, X. (2012). When is homework worth the time? Evaluating the association between homework and achievement in high school science and math. *High School Journal,* 96(1), 52–72.

Naydanova, E., Beal, B. D., & Doty, D. H. (2018). Internet use for school-mandated and self-initiated learning: Good, bad, or both*? CyberPsychology, Behavior & Social Networking,* 21(7), 444–449.

Rosário, P., Cunha, J., Nunes, A. R., Moreira, T., Núñez, J. C., & Xu, J. (2019). "Did you do your homework?" Mathematics teachers' homework follow-up practices at middle school level. *Psychology in the Schools,* 56(1), 92–108.

Watkins, P. J., & Stevens, D. W. (2013). The goldilocks dilemma: Homework policy creating a culture where simply good is just not good enough. *Clearing House: A Journal of Educational Strategies, Issues and Ideas,* 86(2), 80–85.

Xu, J. (2011). Homework completion at the secondary school level: A multilevel

analysis. *Journal of Educational Research,* 104(3), 171–182.