# Effects of Homework on American Elementary-School Students' Subjective Well-Being 

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# EFFECTS OF HOMEWORK ON AMERICAN ELEMENTARY-SCHOOL STUDENTS' 

 SUBJECTIVE WELL-BEINGby
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#### Abstract

Homework has always been a hotly-debated issue in the US because of the significant role it plays in children's lives. Despite the wealth of research conducted on the relationship between homework and academic achievement, there has been almost no research on the relationship between homework and student well-being. The purpose of this proposed study is to investigate how homework affects American elementary-school students’ subjective well-being. Utilizing a correlational longitudinal design, students aged 6 to 10 will respond to orally-administered subjective well-being measures at three timepoints throughout the school year, and parents will submit online weekly reports of how much time their child spends on homework throughout the school year. It is predicted that students who spend more time on homework will have lower levels of subjective well-being than their peers who spend less time on homework. It is also predicted that student socioeconomic status and learning disability status will moderate the relationship between time spent on homework and subjective well-being, respectively. The research findings may shed light on previously understudied effects of homework, and may help policymakers, school officials, and teachers make informed decisions regarding the assignment of homework at the elementary-school level.


Keywords: Subjective well-being, homework, elementary school, student

The completion of nightly homework is an almost universal experience for students in the United States. In 2016, 95\% of American elementary-school students were assigned homework (National Center for Education Statistics, 2019). From a very young age, children are often told that homework is good for them, but this "good" is often examined through the lens of academic achievement, rather than coupled with a concern for student well-being (Kohn, 2006). This narrow focus on academic performance has contributed to a general deficit of research on student well-being in the field of educational psychology (Cooper 1989a).

The lack of research into student well-being, especially elementary student subjective well-being, stems from three significant sources: American culture, educational policy, and a lack of proper psychometric materials. First, there is an overvaluation of economic prosperity cooccurring with an undervaluation of personal well-being in American culture (Noddings, 2003). Second, there is a disproportionate emphasis on future outcomes associated with schooling and well-being, rather than present measurements (Ben-Arieh, 2007). Historically, U.S. policies and practices have emphasized globalization and economic competitiveness through strong reading and math skills for employment. Landmark educational events such as the No Child Left Behind Act (2001), as well as its alarmist essay predecessor, A Nation At Risk (1983), galvanized schools to focus on academic content accountability rather than a holistic student perspective (Huebner, 2014). Third, potential future research is often stifled by a general lack of age-appropriate, comprehensive, and psychometrically-sound measures for elementary-aged children (Gaderman, 2011).

One might ask, what does subjective well-being, colloquially referred to as "happiness," have to do with education? Author and educational philosopher Nel Noddings argued that "happiness and education are, properly, intimately connected. Happiness should be an aim of
education, and a good education should contribute significantly to personal and collective happiness" (2003, p. 1). Noddings presented the notion that schools have an obligation to equip students with the tools and experiences needed to flourish holistically. The promotion of subjective well-being, referred to as "happiness" by Noddings, is integral to educating wellrounded human beings, as it contributes to a fulfilling personal life and a fulfilling public life. From this pedagogical perspective, quality education requires both academic learning and the promotion of subjective well-being in schools. If homework is to support the aims of education, we must examine its effects on students not only from the perspective of academic achievement, but also from the standpoint of promoting subjective well-being.

Given the current dearth of research on the subjective well-being of children, despite the clear importance of subjective well-being in quality education, the present study aims to answer the following question: What is the impact of homework on American elementary-school students' subjective well-being?

## Defining Homework

The construct of homework has been defined in a multitude of varying and nuanced ways throughout prior educational research, but for the purpose of this study, Harris Cooper's definition will be used. Cooper defined homework as: "tasks assigned to students by schoolteachers that are meant to be carried out during non-school hours" (1989, p. 7). This definition of homework does not extend to in-school tutoring, extracurricular activities, or home study courses offered outside of official school assignment. However, homework comes in numerous formats, ranging anywhere from reading, to worksheets, to essays, and is assigned for a variety of purposes.

For example, content analysis from Epstein $(1989 ; 2001)$ revealed that there are 10 broad purposes of homework: practice, preparation, participation, personal development, parent-child relations, parent-teacher communications, peer interactions, policy, public relations, and punishment. Practice-homework is designed to provide students with opportunities to practice skills learned in class, increase speed, demonstrate mastery, retain and review content, and study for exams. Practice has been reported to be the predominant reason teachers assign homework to elementary school students (Epstein \& Voorhis, 2010). Across all the 10 homework domains, elementary school teachers report that they assign homework with the intention to help students learn, build study skills, and manage their time wisely, thereby utilizing practice, preparation, and personal development as the guiding forces for homework assignment (Epstein \& Voorhis, 2010). With a foundational framework of homework set in place, we move on to examining the definition of subjective well-being.

## Past and Present Views of Homework

Homework has always been a hotly-debated issue, with general public consensus on the topic changing drastically over the years. Dating back as far as the early $20^{\text {th }}$ century, one of the fundamental issues the progressive education movement advocated against was elementary and middle-school homework (Gill \& Schlossman, 2004). The routine of having children drill, memorize, and recite was at that time seen as a threat to physical and mental health, primarily because it deprived children of the time for non-academic learning opportunities such as outdoor play, the arts, and family interaction (Gill \& Schlossman, 1996). Notably, the PTA urged school boards to minimize and further regulate how much homework teachers could assign, as
homework forced upon children too young to handle such work was portrayed as "the worst of school abominations" (Gill \& Schlossman, 2004, p. 175).

However, by the mid-20th century, the atmosphere of intense negativity towards the discourse on homework had nearly vanished, as progressivism was replaced by a movement for academic excellence that championed academic higher standards. Homework was seen as essential to whip American youth into intellectual shape against the threat of Soviet technological and military superiority during the height of the Cold War (Gill \& Schlossman, 2004). This concern for the supposed dismal state of American education continued into the turn of the $21^{\text {st }}$ century, sparked then not only by the fear of the Soviet Union, but also by the fear of increasing economic competition from around the globe (Gill \& Schlossman, 2004). The publication of $A$ Nation at Risk (1983) provoked the rise of this second wave of the academic excellence movement, warning of a mediocrity in schools that must be combatted with increased standards and more homework, followed by the No Child Left Behind Act (2001) that argued setting high standards with quantifiable goals would improve the subpar individual outcomes in education. However, the outcome of both waves of academic excellence movements has only actually significantly increased homework for the youngest of elementary-school children (Gill \& Schlossman, 2004; Loveless, 2014). The past two decades have also seen a resurgence of strong anti-homework attitudes in the media in response to the one-size-fits-all push for academic excellence (Loveless, 2014).

With this basic knowledge of the history of homework, we can better understand why homework has come to be so commonplace for elementary-school students. Such history also illuminates how much of homework policy and practice has been historically based on opinions and anecdotal evidence, rather than scientific evidence. While there are many strongly-held
beliefs surrounding homework and its effects on children, there is a serious need to investigate those beliefs through empirical research.

## Academic Outcomes of Homework

Although policymakers may hold increased homework as an achievement panacea, the research on homework's relationship to academic benefits remains controversial at best. Outcomes of comprehensive meta-analyses of homework and academic achievement have demonstrated that homework has a strong positive correlation with achievement at the high school level, a modest positive correlation at the middle-school level, and either no correlation or a small negative correlation at the elementary-school level (Cooper 1989a; Cooper, Robinson, \& Patall, 2006). Homework is not a uniformly good thing for all students, and rarely works in the idealized way that both laypeople and policymakers envision (Corno, 1996). Even the oldest students can face too much homework to the point of diminishing returns, or see their work eventually become counterproductive (Corno, 1996). According to the general body of homework research, the optimum amount of homework for achievement is argued to be no more than 10 minutes per night, per grade level; starting at 10 minutes per night in first grade up to a maximum of approximately two hours per night in high school (Cooper \& Valentine, 2001). This rule of thumb is also endorsed by both the National Education Association and National Parent Teacher Association.

This recommendation runs counter to some of the widely-believed myths that many parents, policymakers, and even teachers themselves have regarding homework: the best teachers give homework regularly, more homework is better than less, parents want their children to have homework, homework supports what students learn in school, and homework fosters discipline
and personal responsibility (Corno, 1996). In reality, homework is easily misused or abused by teachers and schools, homework can significantly disrupt family life in the early grades, homework can make some students avoid rather than enjoy schoolwork, and the best homework may be work done at home and brought into school in order to build real-world context for schooling (Corno, 1996). To understand the phenomena of homework and how it affects the lives of young students, homework also has to be studied as a factor related to psychological wellbeing.

## Defining Subjective Well-being

Subjective well-being (SWB) has been conceptualized in a variety of ways in previous literature, but for the purpose of this study, Ed Deiner's definition will be used. Deiner described SWB as how individuals experience the quality of their life and conceptualized SWB through a tripartite model: frequent positive affect, infrequent negative affect, and cognitive evaluations such as life satisfaction (1984). Since Deiner's original conceptualization of SWB, new SWB research has emerged, reflecting larger societal trends concerned with the importance of promoting positive psychological states, rather than solely attempting to alleviate negative states. This trend also illuminates the beginning of a recognition that human well-being must include positive components beyond just economic prosperity (Diener, Suh, Lucas, \& Smith, 1999). In fact, recent studies have suggested that SWB may be causally linked to higher job productivity, creativity, self-regulation, and even better citizenship behavior (Deiner, Lucas, \& Oishi, 2018). Furthermore, theories about the underlying processes of SWB have become more nuanced over time, with recent research indicating that people's culture, values, and the context in which they live greatly influence SWB levels (Deiner et al., 2018). Methodological approaches and
psychometric materials in the field have also seen advances, with SWB findings now being used more frequently to inform policy decisions (Deiner et al., 2018). While self-report measures for adult SWB consistently show high internal consistency, moderately strong test-retest reliability, and reasonable convergence with related measures, constructs, and criteria (Deiner et al., 2018), investigating childhood SWB has progressed at a much slower pace.

Significant changes in family life over the past three decades have prompted a demand from child development professionals, social scientists, and the public at large for a more comprehensive picture of children's well-being (Ben-Arieh, 2007). The absence of disorders, deficits, and disabilities in children does not necessarily indicate proper growth and success (Ben-Arieh \& Goerge, 2001). Furthermore, there has been an emergence of conceptualizing childhood as a full life stage in and of itself, rather than a mere transitionary period towards adulthood; the previous focus of well-becoming has shifted towards the immediate importance of well-being (Ben-Arieh, 2007). Whereas well-becoming emphasizes the importance of future functioning in a child, well-being emphasizes the importance of present functioning in a child, illustrating a shift in perspective on the importance of childhood in comparison to adulthood. Alongside this new perspective of childhood is the emergence of the importance of the subjective perspective, particularly in children. Until recently, much research on children's lives has revolved around objective descriptions from researchers, physicians, teachers, and parents, treating children as "passive objects who are acted on by the adult world" (Ben-Arieh, 2007, p. 7). However, there are legitimate concerns regarding the measurement of subjective concepts, especially SWB in children under age 8, due to their limited cognitive capacities for selfevaluation, and even some concerns with older children's ability to reliably and accurately selfreport (Gaderman, 2011). According to Pollard \& Lee's systematic literature review, there is no
standard method to assess well-being in children, let alone subjective well-being, and the majority of researchers have used multiple separate measures that align with their working definition of child well-being in an attempt to capture a more complete assessment than currently exists in a single established measure (2002).

Although SWB is only one of many conceptualizations of well-being, it has been shown to be a unique and valuable construct for insight into the emotional and cognitive aspects of wellbeing. Given the prior lack of research on children's healthy and subjective internal states, combined with the prior lack of research on the non-academic outcomes of homework, exploring the link between homework and SWB has great potential for bridging the many aspects of the field's current research gaps.

## Homework and Well-being

There has been a great deal of attention paid towards empirically investigating the potential academic benefits of homework, but the current research on homework's effect on student well-being and non-academic outcomes in general is grossly limited, particularly for American elementary-school students. While elementary-school student academic performance is not significantly impacted by homework, it has been found that student attitudes are affected, with homework being associated with negative student attitudes at both the second and fourth grade levels (Cooper, Lindsay, Nye, \& Greathouse, 1998). And although not at the elementary school level, it has been found that high school students report increased stress and lower rates of well-being when homework quantity is increased (Galloway, Conner, Pope, 2013). Furthermore, homework-related social pressures as well as the content and workload of homework were found to be predictive of physical illness, depression, and anxiety among elementary-school students in

Hong Kong (Cheung \& Leung Ngai, 1992). Although empirical research at the intersection of student well-being and homework is extremely limited, the limited research that does exist can still help to guide and inform the present investigation. Furthermore, such limited findings also demonstrate the need for the present study as well as future studies to investigate the link between homework and student well-being.

## Theoretical Framework

While there is little existing research on the intersection of homework and child wellbeing, existing psychological theories and related empirical work can help us build a framework to predict how homework may affect children's SWB. In addition to prior research studies and the work of more contemporary theorists, the cognitive endeavors of Festinger, the social system efforts of Bronfenbrenner, and the developmental work of Vygotsky provide useful theoretical frameworks through which the links to well-being and homework are better understood. The theories in this section are presented with the aim of exploring a broad range of possible explanations for why time spent on homework may negatively impact SWB in children, and are drawn from a range of perspectives and disciplines in psychology. The potential relationship between homework and SWB will be examined in this section through the lens of relevant prior empirical research, cognitive dissonance, resource scarcity, social systems, and the zone of proximal development.

Homework may be particularly detrimental for harmonious family interaction. As educational researcher and author Lyn Corno remarked, "Parents as well as children can experience psychological distress - crying and yelling and other angry outbursts - as a direct result of elementary school homework" (2000). Parents generally tend to view homework as a
necessary evil that will prepare children for future obligations and time management (Coutts, 2004). Though parents are able to reason about abstract potential benefits of homework and are able to think long-term, students often have trouble seeing the purpose of homework because of limited immediate relevance to their lives (Coutts, 2004). This fundamental disconnect can explain why elementary-school homework has been found to significantly impact family stress levels, such that households with higher rates of stress and tension were more likely to have parents and children arguing over homework, as well as children who dislike their homework (Pressman, Sugarman, Nemon, Desjarlais, Owens, \& Schettini-Evans, 2015). We can look at the disconnect in the beliefs about the purpose of homework through the lens of Festinger's theory of cognitive dissonance (1962). Cognitive dissonance is an uncomfortable feeling that arises when there is a conflict between an individual's belief and their behavior. When a student believes that homework is not useful because they see no immediate benefits, yet continues to work on their homework, cognitive dissonance may occur, which could lead to lowered levels of SWB if the student experiences prolonged lengths of the strong inner confliction and turmoil produced. This cognitive dissonance may be exacerbated by the fact elementary-school students have been found to gain no significant academic performance benefits from completing homework (Cooper 1989a; Cooper, Robinson, \& Patall, 2006). When a child believes their homework is not worthwhile, and then they additionally see no improvements on their grades or test scores, their cognitive dissonance may grow even further.

The effects of homework on SWB can also be examined through the concept of resource scarcity. Homework expert and researcher Harris Cooper theorizes generally that excessive homework at the elementary school level may harm student well-being because time after school is a limited and valuable resource for development. When homework denies access to other
positive leisure, daily living, and family and community activities, it may be limiting wellrounded and healthy child development (Cooper, 2003). Possible negative effects of utilizing excessive after school time on homework include satiation (loss of interest in academic material, physical and emotional fatigue, denial of access to leisure time and community activities), parental interference (pressure to complete assignments and perform well, conflicting instructional techniques), and cheating (copying from other students, help beyond tutoring). All of these negative effects have the potential to strongly influence a student's subjective wellbeing. Education researcher Denise Pope also conceptualizes time as a precious resource that children need to have allocated to three vital areas: playtime, downtime, and family time (Challenge Success, 2018). Pope and her research team at Challenge Success, a nonprofit organization dedicated to helping school communities implement research-based strategies to promote student well-being, have coined the term PDF for playtime, downtime, and family time. PDF is not just a nice "extra" for children to experience; children need to experience PDF daily in order to thrive. Research has shown that free play is linked to increases in cognitive skills, physical health, self-regulation, language abilities, social skills, and empathy (Challenge Success, 2018). Research also suggests that regular downtime throughout the day is essential to children's physical and emotional health, with sleep also being a necessary facet of downtime (Challenge Success, 2018). Finally, research illustrates that children who are a part of a family unit that spends time together are more likely to feel supported, safe, loved unconditionally, and have higher self-esteem as well as better academic outcomes (Challenge Success, 2018). When homework takes time away from PDF, children lose valuable unstructured time used to explore the very nature of their being and navigate their place in the world, recharge, and maintain a strong sense of connection and belonging.

Social systems can also play a critical role in child development and SWB. Bronfenbrenner's bio-ecological model of human development (1998) conceptualizes child development as having four concentric circles of environmental influence: the microsystem (interpersonal interactions and immediate surroundings), the mesosystem (interactions between components of the microsystem), the exosystem (indirect effects of interpersonal relationships), and the macrosystem (cultural and societal beliefs). When homework is assigned to a student, it becomes a part of their microsystem, and the connection between school and home exerts influence through the exosystem on the microsystem, and permeates to affect family life, friendships, and after-school activities that also exist in the microsystem. The microsystem has the strongest direct influence on children, which means that if homework negatively disrupts the other components of the student's microsystem in the form of exosystem pressure (family stress from arguing, less frequent playdates with friends, etc.), their development and well-being may be hindered significantly.

Students from low SES households may also have a more difficult time with homework affecting their SWB. Educational researchers Etta Kralovec and John Buell have also found that when examined with life, family, and community context, homework often punishes students in poverty for being poor by reinforcing social inequities and skewed resource distribution (2001). While high SES households often provide access to technology and well-educated adults that can help with homework, low SES households often have adults that work at night and do not provide access to other technological or educational resources (Kralovec and Buell, 2001). If a child from a low SES household is already concerned about having their basic needs met, the pressure of having homework to complete may only further exacerbate their stress and mental health, especially if there are in-school consequences for failing to turn in homework. Harris

Cooper's theoretical exploration of the potential negative effects of homework on children also cites low-income students as being particularly vulnerable to increased academic satiation, detrimental parental interference, and cheating (2003). Furthermore, research from the Netherlands has found that socioeconomic status (SES) significantly impacts the effects of homework in the elementary level on academic performance, with homework possibly amplifying existing inequalities due to differing levels of available resources both in and out of the home (Rønning, 2011). As explained by Kralovec and Buell, some students from low SES households may not have an environment in which to complete homework that is conducive to learning or studying, or may not have adults that can aid them in understanding assignments they need help with, which can further induce stress and frustration.

Finally, SWB may be negatively impacted by homework if the homework is developmentally inappropriate for a student's current level of cognitive development and corresponding attention span. Vygotsky's concept of the zone of proximal development (ZPD) can help us understand the potential pitfalls of overly-advanced homework on student SWB. The ZPD is the difference between what a learner can accomplish without help, and what a learner can achieve with help, and is considered the cognitive "sweet spot" in which instruction is most beneficial for a student; a learner can follow a more experienced individual's example, and gradually develop their ability to complete the task at hand on their own (Vygotsky, 1978). When a task is not too difficult nor too easy, but rather just challenging enough for the learner to develop new advances based on what has already been mastered, it falls within the ZPD. However, if a homework task is too advanced for a learner even with appropriate, scaffolded help, the task is therefore outside of their ZPD. When homework is too complex, it leads to frustration, stress, anxiety, and self-consciousness, and can eventually lead to learned
helplessness, rumination about personal weakness, and cause suffering in close relationships (Corno, 2000). Children in classrooms that utilize developmentally inappropriate practice have also been found to exhibit significantly more stress behaviors than children in classrooms that utilize developmentally appropriate practice (Burts, Hart, Charlesworth, \& Kirk, 1990). Strong, frequent negative emotions surrounding the completion of homework may lead to serious negative impacts on a child's SWB.

If a student has a learning disability, frustration, stress, anxiety, and self-consciousness may be even more likely to occur due to homework being too time-consuming or complex. Students with learning disabilities are more likely than neurotypical students to have problems completing homework due to characteristics of learning disabilities that are likely to interfere with doing homework: deficits in reading and math, poor communication and organizational skills, and difficulty with on-demand voluntary, selective, and sustained attention (Bryan, Burstein, \& Bryan, 2001). Students with learning disabilities are also often given homework that requires them to finish incomplete classwork, but they may fail to complete such homework assignments for the same reasons they failed to complete the tasks at school (Polloway, Foley, \& Epstein, 1992), inducing further frustration. Additionally, parents and teachers of students with learning disabilities have reported that it is often more difficult for them to accurately record assignments, as well as remembering to take homework materials to and from school (Bryan et al., 2001). Many parents have also described how their learning-disabled child may require multiple hours to complete an assignment that was intended to take only minutes for neurotypical students (Baumgartner, Bryan, Donahue, \& Nelson, 1993). Even in controlled, age-matched settings, children with learning disabilities experienced nearly 2.5 times the level of difficulty with specific homework problems as neurotypical children (Polloway et al., 1992). The overall
difficulties that commonly exist for students with learning disabilities may overwhelm or frustrate a child even further, exacerbating the negative emotional issues that can already surround homework, negatively impacting SWB.

The purpose of this study is to investigate the impact of homework on American elementary-school students' subjective well-being. Given the presented literature, it is first hypothesized that time spent on homework by elementary-school students will be associated with lower levels of subjective well-being. When more time is spent on homework at the elementaryschool level, time for other crucial activities that promote healthy development is limited, interpersonal relationships integral to a child's well-being may be impacted, and children may become academically saturated or frustrated by long homework sessions. All of these outcomes have been shown to theoretically decrease SWB in a child. Second, it is hypothesized that SES will moderate the homework-SWB relationship. When a student lives in a low SES household, they often endure more stressful or developmentally insufficient conditions, such as a lack of basic daily-living needs and academic resources. Such regular physical and emotional strains have been shown to theoretically decrease SWB in a child, as they would exacerbate the negative issues that already exist for homework. Third, it is hypothesized that learning disability status will moderate the homework-SWB relationship. When a student has a learning disability, they often experience increased difficulty completing homework due to impacted cognitive skills essential to working through homework successfully. Such regular emotional strains have been shown to theoretically decrease SWB in a child, as they would exacerbate the negative issues that already exist for homework.

## Study Overview

For the current study, I will use a correlation design by collecting weekly data from parents of elementary school students on how much time they spend on homework, and administering SWB materials directly to the students through an interview format at multiple checkpoints throughout the students' school year. It is predicted that time spent on homework by elementary-school students will be associated with lower subjective well-being. Furthermore, it is predicted that the relationship between time spent on homework and subjective well-being will be moderated by SES status, as well as learning disability status, respectively.

## Proposed Method

## Participants

Based on a power analysis conducted in $G^{*}$ Power, at least 196 participants will be needed for the present study. Participants will be Californian elementary-school students, enrolled in grades $1-5$, and approximately 6 to 10 years old. Predicted racial makeup will be 52.1\% Latino, 26.6\% White, 10.8\% Asian, 5.2\% Black, 4.5\% Multiracial, 0.4\% Native American, and $0.3 \%$ Pacific Islander (CA Dept of Finance 2018), predicted gender makeup will be $51.2 \%$ male and $48.8 \%$ female (CA Dept of Finance 2018), and predicted SES makeup will consist of $18.1 \%$ of students living in poverty, with a median family income across participants of $\$ 70,892$ (US Census Bureau 2018). Participants will be recruited by advertising the study directly through channels at various California elementary schools. School officials such as superintendents, principals, and teachers will be contacted for permission to notify parents of the study through a school newsletter, school flyers, or school announcements. Participants will also be recruited by contacting the PTA for approval to make an announcement informing parents of the study at a local PTA meeting or through a local PTA email or newsletter. No compensation will be provided.

## Materials

Affect. A shortened version of the Positive and Negative Affect Scale for Children (PANAS-C) will be used to assess positive affect (PA) and negative affect (NA). The scale has been adapted and shortened for use with children by Ebesutani, Regan, Smith, Reise, HigaMcMillan, and Chorpita (2012). The scale has 10 items, with five items measuring PA (joyful, cheerful, happy, lively, proud) and five items measuring NA (miserable, mad, afraid, scared, sad). The prompts ask children to indicate how much they have felt a given emotion during the past few weeks. The response scale is a five-point continuous scale ranging from 1 ("very slightly or not at all") to 5 ("extremely"). Scores are totaled for PA and NA respectively, with higher PA scores indicating high levels of positive affect, and higher NA scores indicating high levels of negative affect. Cronbach's alpha was found to be $\alpha=.86$ for PA, and $\alpha=.82$ for NA, suggesting adequate internal consistency (Ebesutani et al., 2012).

Life Satisfaction. An adapted version of the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and the standard version of the Satisfaction with Life Scale for Children (SWLS-C) will be used to measure satisfaction with life. The adapted version of the BMSLSS was created for use with young students by D. Strózik, T. Strózik, and Szwarc (2015). The scale has five items each representing one of the five life satisfaction domains (family, school, friends, living environment and self). Children are asked how they feel in each domain, and respond on a five-point visual smiley face scale ranging from a very unhappy face (1) to a very happy face (5). High scores on the scale indicate higher life satisfaction than low scores. Cronbach's alpha for the adapted BMSLSS was found to lie between $\alpha=.64$ and $\alpha=.76$, suggesting questionable but adequate internal consistency (Strózik et al., 2015). The SWLS-C
has been adapted for use with children by Gadermann, Schonert-Reichl, and Zumbo (2010). The scale has five items regarding global assessments of the child's life, and participants respond to statements on a five-point continuous scale ranging from 1 ("disagree a lot") to 5 ("agree a lot"). High scores on the scale indicate higher life satisfaction than low scores. Cronbach's alpha for the SWLS-C was found to be $\alpha=.86$, suggesting adequate internal consistency (Gadermann et al., 2010).

## Procedure

The study will be predominantly conducted in a laboratory setting, with some data supplemented through brief online surveys. Informed consent will be obtained from parents, and assent from children. Child participants will attend a total of three lab interview sessions to administer subjective well-being surveys for T 1 (start of schoolyear), T 2 (schoolyear midpoint), and T3 (end of schoolyear) data collection throughout the school year. In each data collection session, children will first complete the PANAS-C, then the BMSLSS, and then the SWLS-C. Parents will be asked to complete a weekly online survey throughout the schoolyear on the amount of time their child spends on homework each week. The parent survey will only have one question regarding how much time their child spent on homework that week. Child demographics will only be recorded through a parent survey at the first lab interview session. Parents and children would be given a mini debriefing after every lab interview session, and a formal, full-length debriefing at the end of the school year and T3 data collection interview session.

## Ethics

The predominant ethical consideration for the proposed study will be the use of a vulnerable population: young children. It is necessary to study young children for the present study because the population of interest is elementary-school students, who usually range in age from 6 to 10. It would be impossible to understand the effects of homework on elementary school students' well-being without collecting data from participants of the proper age range, which is how school grade levels are determined. In order to protect the potentially vulnerable participants to the best extent possible, informed consent from parents will be required, as well as verbal assent from the children themselves. Participation in the study will not involve deception, will be completely voluntary, and will in no way affect a student's treatment or standing in school.

While the present study provides no obvious benefits to the child participants nor their parents, the research may aid society at large through an understanding of the relationships between homework and student well-being. Increasing society's knowledge of what influences children's well-being may help to improve the well-being by shifting educational practices that affect well-being for elementary-school students in the future. Furthermore, the risk level to participants is minimal. Participants will not experience a higher probability or magnitude of harm than what is ordinarily encountered in the performance of routine psychological examinations and they will not be disclosing sensitive information. Due to the nature of the repeated interview process, data will be protected at the confidential level. In order to ensure data will remain confidential, data will be protected from disclosure outside of the research setting, digital data will be encrypted and physical data will be locked, and only the researcher will have access to the passwords and keys for the data. In summary, the proposed study represents ethical
research in psychology, and the potential benefits of increasing society's knowledge of its educational practices outweigh the potential risks to participants.

## Predicted Results

Once the data has been appropriately cleaned and coded, the data for weekly time spent on homework will be averaged into a single average weekly homework time value for each child. SWB data will also be averaged for each child across the three data collection periods, so each child has a single average score for each of the three SWB scales. Homework time data for each child will be averaged in order to conduct analyses that look for relationships based on the workload that a child would generally experience, providing a more accurate insight into a child's functioning throughout the entire schoolyear. Similarly, SWB data for each child will be averaged for each scale in order to conduct analyses that look for relationships that are not significantly affected by abnormal temporal or environmental factors at school on a given day. Once these average scores have been calculated, an outlier analysis will also be conducted to determine if any participant data should be excluded for proper statistical analysis.

A simple linear regression will be conducted to establish if there is a relationship between time spent on homework and student SWB. Because SWB is a construct operationalized in the present study through three dependent variables (affect, student life satisfaction, and general life satisfaction), three separate linear regressions will be run to test for an effect on each dependent variable. For this first linear regression model, my predictor variable will be time spent on homework (continuous), and my dependent variables will be SWB (each of the three variables is continuous). An additional linear regression with an interaction term will be conducted to investigate if SES moderates the relationship between time spent on homework and student SWB. For this second linear regression model, my predictor variables will be time spent on
homework (continuous), SES (continuous), and the interaction product from time spent on homework and SES. My dependent variables will be SWB. Just as in the first model, three separate linear regressions will be run to test for an effect on each dependent variable. If a significant interaction effect is found, it would be probed to investigate the exact nature of the interaction. A final linear regression with an interaction term will be conducted to investigate if learning disability status moderates the relationship between time spent on homework and student SWB. For this second linear regression model, my predictor variables will be time spent on homework (continuous), learning disability status (dichotomous), and the interaction product from time spent on homework and learning disability status. My dependent variables will be SWB. Just as in the first and second model, three separate linear regressions will be run to test for an effect on each dependent variable. If a significant interaction effect is found, it would be probed to investigate the exact nature of the interaction.

It is first hypothesized that time spent on homework by elementary-school students will be associated with lower levels of subjective well-being. Consistent with the hypothesis, it would be expected that students who spend more time per week on homework will show more negative affect, less positive affect, and less life satisfaction both globally and in school than their peers who spend less time on homework. This result is expected because time spent on homework may limit time that is allocated to other developmentally and emotionally necessary activities, may negatively impact a child's relationships, or may simply be frustrating in and of itself for being too time consuming or scaffolded incorrectly, thereby decreasing SWB. Second, it is hypothesized that SES will moderate the homework-SWB relationship. Consistent with the hypothesis, it would be expected that there would be an interaction effect such that less well-off students would show more negative affect, less positive affect, and less life satisfaction both
globally and in school than their wealthier peers who spend the same amount of time on homework. This result is expected because low SES students' stressful or inadequate conditions, such as a lack of basic needs and academic resources, may exacerbate the negative emotional issues that can already surround homework, further decreasing SWB. Third, it is hypothesized that learning disability status will moderate the homework-SWB relationship. Consistent with the hypothesis, it would be expected that there would be an interaction effect such that students with a learning disability would show more negative affect, less positive affect, and less life satisfaction both globally and in school than their neurotypical peers who spend the same amount of time on homework. This result is expected because the difficulties that students with learning disabilities often experience may exacerbate the negative emotional issues that can already surround homework, further decreasing SWB.

## Discussion

The purpose of this study is to investigate how homework affects American elementaryschool students' subjective well-being, which is an incredibly under-researched area at the intersection of positive and educational psychology. Homework has historically been an integral aspect of the American school system as well as educational reform movements, due to how impactful time spent on homework can be in a child's daily life. However, the majority of research conducted about homework has only investigated the claims regarding its academic effects and has largely ignored exploring its non-academic effects. This study aims to bridge this research gap, building on the theoretical and empirical work that already exists on homework, child well-being, and the elementary-school system in America.

## Limitations

It should be noted that there are several aspects of the proposed methodology for this study that could limit the validity of the predicted findings. First, causality cannot be derived given the study design not meeting conditions for a true experiment due to the reality that random assignment in a case such as this is likely impossible and also unethical. Second, selfreport measures modified for use with children will be utilized to collect all dependent variable data. While the selected measures have been validated on samples of young children in previous studies, prior research (Gaderman, 2011) has suggested that using any self-report measures with young children may provide unreliable data. There is extra concern about using self-report measures for children under age 8 , due to underdeveloped cognitive capacities for comprehending subjective concepts as well as accurately self-evaluating. Third, prior levels of homework exposure are not controlled for in this study. Prior exposure will be left uncontrolled for due to how unreliable data would likely be from having parents estimate average time spent on homework per week over an entire year for which they were not explicitly asked to monitor homework time. Because of this, students will vary on prior experience completing and managing homework, which may influence the level of emotional and cognitive coping skills they have that could help alleviate the predicted negative subjective well-being effects of time spent on homework. Fourth, while this study aims to investigate the population of American elementary-school students, the actual proposed sample would be limited to Californian elementary-school students, due to the logistic difficulty of interviewing children across the entire US. While Californian elementary-schools still fall under the American school system, they are not representative of variation present across the US school system. There may be significant regional differences in student makeup, culture, and school functioning between
school districts across the entirety of the US, which renders the predicted results less generalizable than desired. Future studies in this area should take these limitations into account.

## Future Directions

Since the study of the effects of homework on non-academic outcomes is still a relatively unexplored area, future research may go in a variety of directions. However, it would be interesting to investigate whether the specific type of homework assigned also moderates the predicted homework-SWB relationship. Homework is assigned for a variety of reasons, and the form of a homework assignment may impact how well it is received by students, and therefore the extent of its potential to impact SWB. For example, group-based homework, rote memorization homework, project-based learning homework, and personally scaffolded homework are all significantly different forms of homework that may have significantly different impacts on SWB. It would be important to study this potential moderation effect, because it could help to illuminate types of homework that pose more or less risk to student well-being, which may in turn help teachers improve student well-being while still abiding by school policies and parent expectations for homework. It would also be pertinent to develop and validate more comprehensive measures for assessing SWB in very young children. Such measures could be aimed for use in academic research, or developed for schools to use independently as a form of self-assessment to reform their policies and practices. Not only would this help make all types of child SWB research more prevalent, but it could help make assessing and improving child SWB more accessible to school officials and teachers without having to wait years for research to be published in order to inform best practice for their school.

## Conclusion

This proposed study may play a key role in establishing an empirical relationship between homework and subjective well-being, particularly for American elementary-school children. The implications of this study's predicted results are important in understanding a more comprehensive view of the effects of homework. Understanding how to improve young children's subjective well-being is equally as important as understanding how to improve their academic achievement. This study's predicted findings may raise discussions regarding balancing the multifaceted needs of developing young children in education, and whether the predicted detriments of homework are worth enduring for the supposed benefits. Such discussions and knowledge may in turn help policymakers, school officials, and teachers make more informed decisions regarding the assignment and appropriateness of homework at the elementary-school level.

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