

# Meaningful and Maladaptive Homework Practices: The Role of Self-Efficacy and Self-Regulation

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Homework is an academic endeavor of paramount importance for students, parents, and teachers (Bembenutty, 2010; Dettmers, Trautwein, Lüdtke, Kunter, & Baumert, 2010; Patall, Cooper, & Wynn, 2010; Trautwein, Niggli, Schnyder, & Lüdtke, 2009). According to Harris Cooper, *homework* involves tasks assigned to students by school teachers that are meant to be carried out during noninstructional time (Bembenutty, 2011). Cooper (2007) posited that homework has benefits for academic achievement among students, particularly for middle and high school students. In his meta-analysis examining the association between homework and academic achievement, Cooper (1989) found that high school students who did homework had higher academic performance than students who did not do homework. Overall, homework improved achievement, had a positive effect on unit tests, had a positive link to grades or standardized tests, and, relative to other

To be successful in homework completion, learners need to be self-regulated by setting homework goals, selecting appropriate learning strategies, maintaining motivation, monitoring progress, and evaluating homework outcomes. This article examines the role of self-regulation of learning on assigned homework. The findings reveal positive relationships between homework activities and self-efficacy, responsibility for learning, and delay of gratification. A positive relationship between homework and a range of self-regulation skills exists that facilitates academic achievement and performance. Homework assignments can enhance the development of self-regulation processes and self-efficacy beliefs, as well as goal setting, time management, managing the environment, and maintaining attention. Some educational programs may be inadequately attuned to the self-regulatory needs of learners that are vital for effective learning. Students engage in multiple maladaptive homework behaviors to cope with homework demands. Those maladaptive behaviors call for more self-regulatory learning training for students and educators. In addition, the author demonstrated how we can use research to transform the public view of homework, which will result in a more positive disposition of learners. This article provides a starting point from which to launch renewed efforts to continue examining the strengths and limitations of current homework practices.

## Summary

educational interventions, homework had an above-average effect on achievement (Cooper, 1989). However, as Patall et al. (2010) observed, not all teachers assign homework and not all students do homework. Successful homework completion requires self-regulation of learning (Kitsantas & Zimmerman, 2009).

According to Zimmerman, Bonner, and Kovach (1996), to be successful in homework completion, learners need to be self-regulated by setting homework goals, selecting appropriate learning strategies, maintaining motivation, monitoring progress, and evaluating homework outcomes. From the self-regulation perspective, all learners can be empowered to control their environment, maintain motivation, and reflect about homework progress (Cleary & Zimmerman, 2004).

Highly self-regulated learners approach homework in different ways than less skilled learners (Kitsantas & Zimmerman, 2009). Imagine Juan, a self-regulated learner. During class, Juan takes appropriate notes about the homework assigned and asks the teacher questions when he does not understand something; on his weekly planner, Juan writes goals to complete the homework. Once at home, he believes that he can do his homework, finds the homework interesting and valuable for his future career, and asks parents, siblings, and friends to give him time alone to complete the homework. Once he is doing the homework, he monitors his progress with a homework-monitoring log, changes study strategies when it is necessary, and e-mails his teacher to seek clarification of the homework he finds unclear. When he completes the homework, he reviews it, evaluates his satisfaction, and reflects on his progress. On the other hand, imagine Miguel, a less conscientious learner who during class is distracted with text messages from his friends, takes disorganized notes, and does not ask questions when he is confused. At home, he studies with the television on, cell phone next to him, and interacts with his friends through texts, Facebook, and Twitter. At the end of the night, the homework is not completed, or he copies it from Wikipedia.

Juan and Miguel are two students who approach homework with different self-regulatory mindsets. Thus, the present article

examines what defines meaningful homework, the process of self-regulation of homework completion, the role of self-efficacy in homework completion, and it concludes with recommendations for teachers about how to approach maladaptive homework behavior.

## Overview of Association Between Self-Regulation and Homework

*Self-regulation of learning* involves learners setting goals, selecting appropriate learning strategies, maintaining motivation, engaging in self-monitoring, and evaluating their own academic progress (Zimmerman, 2000). Under this framework, effective learners are self-regulated students who take a proactive approach in the presence of obstacles (Corno, 2001; Zimmerman, 1998) in order to complete homework assignments in an effective manner. They orchestrate their learning strategies to pursue long-term learning outcomes. Although students need to be self-regulated to effectively maximize the outcome of their homework efforts, this call for self-regulation of homework completion is also a call for teachers to inspire students to be engaged in learning and to provide intrinsically rewarding and autonomous homework assignments.

### William James' Talks to Teachers

William James (1899) challenged teachers with his words:

In teaching, you must simply work your pupil into such a state of interest in what you are going to teach him that every other object of attention is banished from his mind; then reveal it to him so impressively that he will remember the occasion to his dying day; and finally fill him with devouring curiosity to know what the next steps in connection with the subject are. (pp. 9–10; see also Bembenutty, 2009)

Applied to homework, James was concerned with the role and effectiveness of the teacher, the environment in which learning takes place, and the action and reaction of the learners. James invited teachers to help learners to be self-regulated and to use their volition and willpower to avoid distraction, sustain motivation, regulate emotions, and manage actions. Teachers need to work to stimulate and instill those desires in their students. Teachers need to help students become so absorbed in the task that other distractions and competing alternatives fade away.

With regard to James's (1899) *Talks to Teachers*, Frank Pajares asserted, "James challenges and exhorts us as teachers to be relevant, profound, broad, and even develop a little flair for the dramatic" (as quoted in Bembenutty, 2007, p. 662). He added,

He challenges us to be *memorable*. I try to take his exhortation very seriously. It also bears noting that James concludes *Talks to Teachers* with the admonition that if we can view our students as essentially good, and love them as well, we "will be in the best possible position for becoming perfect teachers." (as quoted in Bembenutty, 2007, p. 662)

Clearly, Pajares concurs with James. Of critical importance is the idea that teachers need to provide homework assignments that will have a profound effect on students' academic, social, and personal development.

James and Pajares specified some of the characteristics of these effective teachers. For instance, Pajares believes that effective teachers need to be memorable and to have a positive perception of their students as capable, essentially good human beings. Teachers with these characteristics would certainly create curricula and assign homework that students would remember for a very long time and approach with devouring curiosity.

From the self-regulatory perspective, both the teachers and the students must become involved in the learning process so that students can become active learners and motivational and behavioral architects of successful homework completion. Under this

umbrella, self-regulated learners are task-focused and often avoid distracting factors that could detract from the value of the homework task and its completion. Certainly, James was concerned with the role and effectiveness of the environment in which learning takes place, as well as the action and reaction of the learners.

### Alleman and Colleagues' Meaningful Homework

Teachers need to assign homework that has a clear purpose and rationale and is meaningful. According to Alleman and her associates (2010), *meaningful homework* assignments are ones “that enrich the in-school curriculum by challenging students to think deeply about important questions, apply their knowledge and skills toward solving genuine problems, and creating authentic products that will be used in meaningful ways” (pp. 3–4). Alleman and her colleagues argued that a meaningful homework assignment enriches an existing and well-planned curriculum, supports classroom instruction, connects to current or future lessons, encourages family participation, facilitates student contributions to the classroom communities, and generates excitement and genuine interest in learning.

Alleman and her associates (2010) noted that teachers who design meaningful homework model the assignments for students, contribute to the classroom learning community by completing the assignment themselves, expect diverse responses rather than a single predetermined answer, structure and scaffold the assignments for high rates of success, and celebrate student work to increase homework completion.

Alleman and her associates (2010) highlighted seven principles of meaningful homework (see Table 1).

Principle 1, *providing for expanding meaningfulness and life application of school learning*, involves connecting homework assignments with the out-of-school environment. For instance, students should be encouraged to do assignments in which they are involved in the community.

Principle 2, *constructing meaning in natural ways and expanding a sense of self-efficacy*, includes challenging students to use critical

**Table 1**

*Principles of Meaningful Homework*

Principles	Description	Example for Social Studies
Providing for expanding meaningfulness and life application of school learning	Involves connecting homework assignments with the community	Learners will be able to identify how the Gulf War affected the lives of U.S. citizens
Constructing meaning in natural ways and expanding a sense of self-efficacy	Includes applying the material they are learning in the classroom to real-world situations and enhancing students' self-efficacy	Learners will be able to evaluate current turning points in world history
Extending education to the home and community by engaging adults in interesting and responsible ways	Embraces the notion that parents usually want to be involved in their children's academic tasks and that parental involvement is beneficial to students and teachers	Learners will be able to compare and contrast adults' understanding of major political ideas with their own
Taking advantage of student diversity by using it as a learning resource	Takes account of the differences among the students as opportunities for enhancing their knowledge, skills, and experiences	Learners will be able to examine the broad sweep of history from a variety of perspectives
Personalizing the curriculum and reflecting on the here and now	Implies that meaningful homework allows students to explore their current social, familial, and communal circumstances	Learners will be able to explore how the geography of the interdependent world affects their community
Exploiting learning opportunities that are not cost-effective on school time	Asserts that students could be given meaningful homework assignments that are cost-effective such as exploring their community and observing their environment	Learners will be able to compare and contrast the different economic systems in their communities
Keeping the curriculum up-to-date	Suggests that it is important to supplement textbook information with contemporary information surrounding them	Learners will be able to assess how the governmental system of the U.S. affects rights and responsibilities of its citizens

thinking to apply the material they are learning in the classroom to real-world situations. This principle also addresses the need for the students to have high self-efficacy in their capability to contribute and have an effect on their social settings, which should result in self-regulation of learning.

Principle 3, *extending education to the home and community by engaging adults in interesting and responsible ways*, embraces the notion that parents usually want to be involved in their children's academic tasks and that parental involvement is beneficial to students and teachers. They propose that assigning meaningful homework that students can do with the assistance of adults promotes cooperation between the school and the parents.

Principle 4, *taking advantage of the students' diversity by using it as a learning resource*, takes account of the differences among the students. They argue that these differences between the students are opportunities for enhancing the knowledge, skills, and experiences of the learners. They propose that diverse perspectives in the classroom and assigning meaningful homework that invites learners to know each other, their families, and community should enhance the learning experiences of the students.

Principle 5, *personalizing the curriculum and reflecting on the here and now*, suggests that meaningful homework that allows students to explore their current social, familial, and communal circumstances should help them to reflect on the links between the curriculum and their personal situations.

Principle 6, *exploring learning opportunities that are not cost-effective on school time*, asserts that students could be given meaningful homework assignments that are cost-effective by exploring their community, observing their environment, gathering data, or attending community meetings.

Finally, Principle 7, *keeping the curriculum up-to-date*, suggests that it is important to supplement textbook information with up-to-date material that will allow students to learn about the contemporary information surrounding them.



## The Process of Self-Regulation of Homework Completion

Self-regulated learners systematically direct their thoughts, feelings, and actions toward the attainment of their academic goals (Zimmerman, 2000). Self-regulation involves the activation and sustaining of goal-directed cognitions and behaviors and includes mental activities such as attention, organization, elaboration, critical thinking, rehearsal, use of learning strategies, and comprehension monitoring. Self-regulation also involves having a purpose or goal, employing goal-directed actions, monitoring strategies and actions, and adjusting those actions to ensure success. Self-regulation includes cognitive and metacognitive knowledge about the tasks, strategies for learning, contexts in which learning can be applied, epistemological beliefs, and motivation for learning.

Barry J. Zimmerman (2000), a leading scholar in self-regulation of learning, formulated a model useful for understanding self-regulation of homework completion in three sequential phases: forethought, performance, and self-reflection.

During the *forethought phase*, students identify learning strategies and sources of motivation that could help them successfully complete their homework assignments. This process includes homework analysis and self-efficacy judgments about learners' capability to complete the assignments.

During the *performance phase*, learners concentrate on strategy use and metacognitive monitoring of the learning process. During this phase, learners use self-monitoring and self-control strategies, delay gratification to sustain motivation, and seek help from reliable and more knowledgeable people to fulfill their homework objectives.

During the *self-reflection phase*, learners examine their homework efforts but also react to the experience by evaluating their standards for learning and their feelings of satisfaction. The cycle is completed when they return to Phase 1 with new homework tasks if the initial ones were satisfactorily completed or when

they reinitiate unfinished assignments with new strategies and renovated competence beliefs.

Bembenutty (2010) examined the roles of motivational beliefs, use of self-regulated learning strategies, and delay of gratification in predicting homework completion and academic performance among college students enrolled in an introductory math course at a small, public technical 2-year college. He found that highly self-regulated learners with high self-efficacy beliefs, willingness to delay gratification, and intrinsic interest in the course reported a proactive approach to completing their homework assignments. He argued that not only does homework serve to convey academic knowledge to students, but it may also prompt them to engage in self-initiated and self-directed studying (Zimmerman, 2002). A path analysis revealed variation in the ways in which the students who were trained in the self-regulated program responded to their training. The students did not report the same levels of motivational beliefs, delay of gratification, and self-regulation. Further, students reported that motivational beliefs were related to their reported use of self-regulation, homework completion, and academic success. These findings are consistent with Zimmerman's (2002) cyclical model of self-regulation of learning. Bembenutty (2010) also found that students who reported engaging in self-regulation also reported completing their homework and that students' reported homework completion was related to their midterm and final course grades. These findings are consistent with the notion that being trained in self-regulation is associated with homework performance and goal setting.

In support of the homework self-regulatory process, Zimmerman and Kitsantas (2005) examined the mediational role of self-efficacy for learning and perceived responsibility beliefs between students' homework reports and their academic achievement among a sample of high school girls. They found that homework and self-efficacy predicted student GPA. Homework influenced students' self-beliefs, and the effect of homework quality on GPA was mediated by students' self-efficacy and perceived responsibility beliefs. The contribution of these findings is that

learners who engage in self-regulation tend to be the ones with higher homework completion and academic performance.

## Self-Efficacy and Homework Completion

According to Bandura (1997, 2011), self-efficacy beliefs are an important source of motivation. *Self-efficacy* refers to one's beliefs in his or her ability to perform at a designated level. These beliefs are measured by degrees of certainty that one can perform given tasks. High self-efficacy beliefs are associated with selection of task, persistence, and use of learning strategies (DiBenedetto & Zimmerman, 2010; Zimmerman, 2000). Learners engage in tasks in which they believe they can succeed. Self-efficacy is associated with the amount of time learners are on task and the effort they exert on those tasks. A high degree of self-efficacy is associated with high academic performance and the use of self-regulatory strategies. Highly self-efficacious learners are characterized by sustained effort despite distractions and long-term waiting periods. They learn to plan their actions and set specific academic goals in order to achieve them (Zimmerman, 1998, 2000).

With regard to homework, students' self-efficacy beliefs are important. Self-efficacious students who receive a homework assignment have a capability belief that influences them to have thought patterns, emotions, and actions that drives them to successful homework completion. They have a belief in their personal accomplishment and select, undertake, and perform homework assignments for which they feel competent and confident. Self-efficacy beliefs help to determine how much effort the students expend on their homework assignments and how long they persevere when attractive alternatives call for attention. They are more resilient when faced with adverse situations. Self-efficacy is related to self-regulation and academic delay of gratification (Bembenutty, 2009, 2010)

With regard to homework, it is important to distinguish between different types of self-efficacy beliefs. Schunk and Pajares (2009) observed that there are five different types of self-efficacy.

First, *self-efficacy for performance* refers to students' beliefs in their capability to perform an academic task, but their judgment may not necessarily lead them to the actual execution of the task. This applies to new homework assignments and tasks that are new to students.

Second, *self-efficacy for learning* refers to students' beliefs about their capability to learn skills that they do not yet possess. This applies to situations in which students receive homework assignments that they believe they are able to learn.

Third, *collective self-efficacy* refers to the entire classroom's beliefs that it as a group can perform designated tasks. This applies to circumstances in which the entire class has a collective belief about its success of completing designated homework assignments.

Fourth, *teacher self-efficacy beliefs* refer to individual teachers' beliefs that they can help the students on their homework assignments and can design effective, interesting, and meaningful homework. Teachers with these beliefs are more effective.

Finally, the *collective teacher self-efficacy beliefs* refer to the beliefs of the entire faculty that together they can be effective. These five self-efficacy beliefs are important because they predict high academic success. Applying these beliefs to homework suggests that teachers with these characteristics would be the ones who would create meaningful homework where students can reach their highest academic potential. However, all students' efforts to approach their homework are not adaptive.

## Maladaptive Homework Behavior

Often, learners use a variety of ineffective strategies to deal with threats to their self-worth when they are unable or unwilling to complete their homework assignments (see Figure 1). These strategies serve to protect them from giving an undesirable

impression to teachers, parents, and peers and to maintain their high self-esteem. *Homework failure* refers to any action, behavior, affect, or belief that is an attempt to regulate homework actions in ways that will result in detracting from reaching long-term academic achievement. Similarly, *maladaptive homework behavior* refers to learners' efforts to achieve homework outcomes in a manner that will result in undesirable academic outcomes. Often students engage in self-handicapping, procrastination, defensive pessimism, defective academic delay of gratification, misregulation, underregulation, iConnected parents, and maladaptive Echo Generation, which are behaviors that will preclude them from successful completion of quality homework assignments. Some of these students succumb to the pressing demands of the Echo Generation, which refers to the millennial population that has knowledge and communicates with media and digital technologies and has liberal views to politics and economics (Armour, 2008; Cone, 2006; Strauss & Howe, 1992; see Table 2).

### Self-Handicapping

*Self-handicapping* refers to learners' tendencies to engage in activities that can keep them from accomplishing important academic goals (Urduan & Midgley, 2001). Some students engage in self-handicapping behavior to alter the meaning of failure by deflecting its cause away from their ability. They prefer to be identified as lacking effort because this is less likely to threaten their self-esteem (Covington, 1984; Martin, Marsh, & Debus, 2001; Urduan & Midgley, 2001). With regard to homework, these students tend to find excuses for their future possible failures that are unrelated to their own ability. For instance, students will make social commitments, work unnecessary overtime hours, accept an invitation to a trip, or attend a party the night before an important homework assignment is due. These actions have negative academic consequences because the homework assignments are not completed or are done with an unacceptable quality. Engaging in self-handicapping behavior predicts long-term fail-

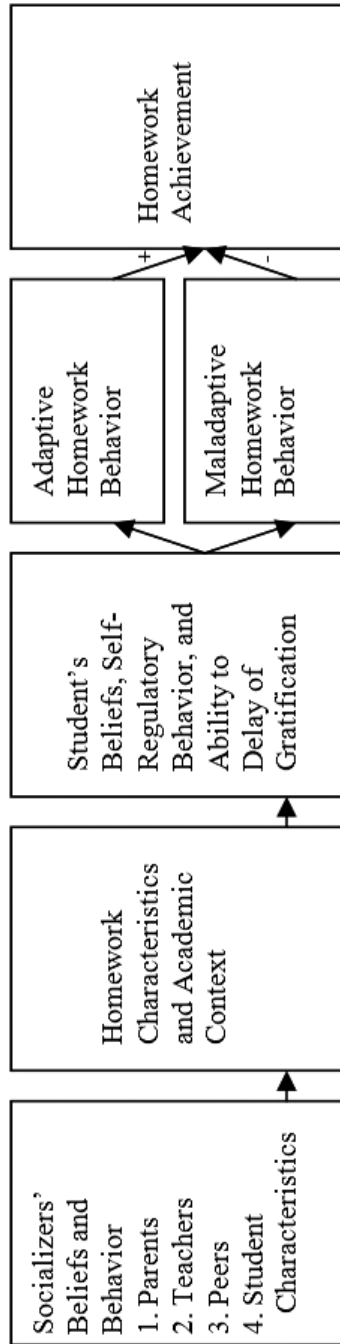


Figure 1. Homework model of achievement.

**Table 2**

*Maladaptive Homework Behavior and Teacher's Role*

Behavior/ Situation	Description	Example	Teacher's Role
Selfhandicapping	Tendencies to engage in activities that can detract from accomplishing important academic goals	Making social commitments or attending a party the night before an important homework is due	Teach learning strategies, such as setting homework goals and using weekly planners and homework logs
Procrastination	Putting off academic tasks that will result in debilitating academic performance	Waiting until the last minute to complete homework	Instill the values of completing the homework on time and the importance of time management and effort regulation
Defensive pessimism	Setting unrealistically low expectations	Lowering expectations in such a way that if the outcome is undesirable, they would have justification for the unsatisfactory performance	Promote optimistic beliefs and enhance self-efficacy beliefs
Defective academic delay of gratification	Postponing immediate gratification in favor of academic goals that are temporally remote	Going to a favorite concert the day before a test rather than staying home to study for a good grade on the test	Promote intrinsic motivation for the sake and enjoyment of the homework task itself rather than for the expectation of external rewards
Misregulation	Attempting to control actions, beliefs, and behavior in ways that will fail to bring the desired outcomes	Trying to complete a very important homework in bed, with the television, radio, or music on, believing that these resources will help them concentrate	Create awareness of futile and fruitless use of energy and effort regulation on strategies that could provide instant gratification but in the long-term will lapse into distraction
Underregulation	Setting or maintaining low standards, having difficulties monitoring behavior, and failing to exercise self-control	Setting standards that are too minimal or negligent, which could result in meeting only the basic homework requirements or failure to achieve even the lowest expected performance levels	Provide homework tools such as weekly planners, logs, and self-monitoring forms that students can use to alter responses and monitor behavior
iConnected parents	Allowing parents to be deeply involved in learners' homework tasks by using technology such as instant communication	Surveying their children's academic work and homework in such a way that children depend on them for decisions such as when to do homework; overassisting children	Suggest noncontrolling ways about how parents could effectively support their children's education and assign group homework or homework that the students could start in the classroom
Maladaptive Echo Generation	Engaging in instant communication through technology and social networking sites	Uncontrolled use of texting during class time or interrupting homework to text members of their social networks	Instill the value of their homework and the importance of delay gratification

ures, low self-efficacy, and students' abandonment of the learning process.

Teachers can help students by teaching learning strategies, such as setting homework goals and using weekly planners and homework logs, in order to monitor academic efforts while promoting learning interests and intrinsic motivation.

## Procrastination

*Procrastination* refers to students' choice of putting off academic tasks that will result in debilitating academic performance (Burka, 2008; Schraw, Wadkins, & Olafson, 2007). Learners often provide themselves with excuses for not completing homework tasks. They engage in other activities and wait until the last minute to complete the homework, knowing that the time and effort necessary to complete the tasks is not sufficient. Often, these students experience negative rumination, stress, and anxiety while procrastinating. However, they fail to take the necessary steps to start the homework on time. Frequently, this is the case even if they have the cognitive skills, can use metacognitive strategies, or have the necessary intelligence level to perform the task. For example, they lack efforts in planning their actions and are unable to create environmental conditions that would be conducive to successful homework completion. On the other hand, procrastination provides an excuse for potential failure.

As in the case of self-handicappers, teachers can help procrastinators by instilling in them the values and incentives for completing homework on time. These students would benefit by learning organization, critical thinking, and elaboration strategies. Similarly, they need training on time management, effort regulation, test anxiety reduction, and self-efficacy.

## Defensive Pessimism

According to Martin et al. (2001), *defensive pessimism* involves "setting unrealistically low expectations and thinking through a variety of possible outcomes prior to events in which one's per-



formance is to be evaluated” (p. 3). Such students have defensive expectations and reflectivity. They experience high anxiety levels, but are able to cope with their detrimental effects in order to control the devastating consequences. They tend to lower their expectations in such a way that if the outcome is undesirable, they would have justification for the failure or unsatisfactory performance (Covington, 1984). These students are involved in and occupied by irrelevant and less demanding activities that will protect them from the perceived threat to their self-worth. This defective strategy serves as a remediation from belief of incompetence and low self-efficacy.

Teachers can help defensive pessimists by encouraging them to develop optimistic beliefs. They need to understand that with effort regulation, time management, and delay of gratification they can complete homework on time. These students would benefit from instruction and curriculum directed at enhancing the self-efficacy beliefs of the students. Highly efficacious learners persist under challenging circumstances, they put forth more effort when distractions compete for attention, and they delay gratification (Bembenutty, 2010).

### **Defective Academic Delay of Gratification**

*Academic delay of gratification* refers to students' willingness to postpone immediately available opportunities to satisfy impulses in favor of academic goals that are temporally remote but ostensibly more valuable (Bembenutty & Karabenick, 1998). Academic delay of gratification is an important individual difference that is associated with homework. Students often need to choose between their preference for an immediately available option (e.g., go to a favorite concert the day before a test, even though the student is not well-prepared) or a delayed alternative (e.g., stay home to study for a good grade later in the course). Bembenutty and Karabenick (2004) observed that students reporting greater delay of gratification had higher self-efficacy and intrinsic motivation and were more likely to use cognitive, metacognitive, and resource

management strategies. Students who reported high preference to delay gratification obtained higher final course grades.

Academic delay of gratification is associated with having positive motivational beliefs and deferring immediately available rewards and goals for the sake of long-term valuable rewards, high confidence in the capability to perform at the expected level, valuing of academic tasks for their own sake, and a high preference for regulating study time and engaging in effort regulation. In contrast, students who are unable or unwilling to delay gratification succumb to immediately available gratification, are sensation seeking, impulsive, lack self-control, procrastinate, and have low motivation for learning.

Teachers can help students to delay gratification by helping them acquire self-confidence beliefs. Students with high self-efficacy beliefs obtain higher grades, are more academically oriented, and engage in self-regulation of learning (Zimmerman & Kitsantas, 2005). To promote delay of gratification, teachers can also help students develop intrinsic motivation so they come to enjoy the homework task itself rather than merely seeking external rewards for homework completion.

## Misregulation

*Misregulation* refers to individuals' attempts to control their actions, beliefs, and behavior in ways that will fail to bring the desired outcomes (Sayette & Griffin, 2011). Often, students engage in self-regulatory strategies that will handicap them. For instance, students may decide to try to complete a very important homework assignment in a café or in a living room where there are many distractions. Students often choose to do homework in their beds, with the television, radio, computer, cell phone, or music on, believing that these resources will help them concentrate. In addition, other students take periodic time-outs from long homework assignments by drinking alcohol or smoking without understanding the negative effects these substances have on their cognitive and metacognitive processes. These actions lead to the breakdown of impulse control and misregulation.

Other learners believe that reading each paragraph of a voluminous book will result in a positive comprehension of the contents of the book, which indeed is clear evidence of their lack of conditional knowledge. Some students who know that underlining and highlighting are effective strategies opt to underline or highlight most pages of their textbooks without understanding that only the most salient and difficult concepts are the ones that need to be highlighted.

Some students set very unrealistic goals, such as completing an important homework assignment in one hour; others monitor their progress by comparing their homework with that of an underachieving peer. Still others, knowing that seeking help is an important self-regulatory strategy, opt to seek help for a homework assignment that they can do alone or seek help from unreliable sources such as information posted on an unreliable Internet page.

Teachers should help students to understand that escaping and avoiding appropriate forms of self-regulation results in exercising self-control in vain. Similarly, teachers can help students understand futile and fruitless uses of energy and effort regulation on strategies that could provide instant gratification but in the long-term lapse or relapse them into distraction and waste the limited resources and energy they have at their disposal.

## Underregulation

*Underregulation* refers to individuals' inability to set or maintain standards, difficulties monitoring behavior, and failure or unwillingness to exercise self-control in the face of temptations and distractions (Sayette & Griffin, 2011). Frequently, learners are unable to set proper standards to guide their homework efforts, which results in the underregulation of behavior. This failure affects their ability to remain task-focused, particularly at the time of attractive and competing options. Sometimes they set standards that are too minimal, which result in the students meeting only the basic homework requirements or in failure to achieve even the lowest expected performance levels.

Learners' inability to monitor their thoughts, feelings, behaviors, or actions place them in a risky position to fail. Their inability to resist temptations and attractive options preclude them from altering responses necessary to avoid risky behavior or inappropriate decisions.

Teachers can help students by providing them with homework tools such as weekly planners, logs, and self-monitoring forms that students can use to alter responses, monitor their behavior, assess their belief system, and set calibrated and realistic standards. Maintaining weekly planners, homework logs, charts, and checklists are tools that can be useful to enhance self-monitoring.

### **iConnected Parents**

According to Hofer and Sullivan-Moore (2010), *iConnected parenting* refers to "a culture of parents deeply involved in their children's lives, even as they approach adulthood, that uses the technology of instant communication to enhance their connection" (p. 2). iConnected parents are so close to their children that they guard and survey their children's academic work and homework in such a way that children depend on them for decisions such as when to do homework. These parents maintain connections with their children through technology such as Skype or instant messenger. As a result, the fault in this parental relationship is that children of iConnected parents are less confident and efficacious about their academic work, engage in less self-regulation of learning, and obtain lower grade point averages in their academic work. According to Hofer and Sullivan-Moore, iConnected parents connect to their children who are in college an average of 13 times per week.

Teachers could help iConnected parents by giving suggestions about how to effectively support their children's education without controlling them and without overstepping their freedom and responsibilities. Teachers could help parents help their children to be self-reliant and self-regulated learners. Similarly, teachers can help students develop self-confidence, autonomous and self-determined actions, and to maintain appropriate boundaries for

connecting and getting parental support. This could be easily done if teachers assign group homework or homework that the students can start in the classroom.

### **Maladaptive Echo Generation**

Members of the *Echo Generation* are individuals born between 1982 and 1995 with high familiarity with media communications and digital technologies (Armour, 2008; Cone, 2006; Strauss & Howe, 1992). They are also called Echo Boomers, the Net Generation, Generation Y, Generation Next, Millennials, or the Peter Pan Generation. Members of this generation stay at their parents' home longer than the previous generation. They avoid experiencing adulthood rites of passage longer than previous generations. They engage in instant communication through technology such as e-mail, texting, YouTube, Facebook, MySpace, and Twitter. Often, this generation can be characterized as being addicted to technology and social networking sites. Most of them have computers, cell phones, and Internet connections, and they multitask, staying connected to technology while performing everyday tasks. For example, this generation often cannot control texting while driving or during class time. Often, these students do homework assignments with the Internet connection on or interrupt homework to text members of their social networks. Their need to be connected through digital technologies often detracts them from focusing on their homework and makes them unable or unwilling to delay instant gratification.

Teachers can help the Echo Generation by instilling in them the value of their homework and the importance of delay of gratification. Helping them set academic, professional, and social goals would help this generation of students. Training on time management and on how to use homework logs and planners could also benefit these students. Self-monitoring and self-evaluation forms can be effective tools that could help these students exercise control of their homework progress and engage in self-reflection about their homework completion and satisfaction.

## Conclusion

The main objective of this article was to examine the role of self-regulation of learning on assigned homework. The findings reveal positive relationships between homework activities and self-efficacy, responsibility for learning, and delay of gratification. This review shows a positive relationship between homework and a range of self-regulation skills that facilitates academic achievement and performance. This review also found support for the notion that homework assignments can enhance the development of self-regulation processes and self-efficacy beliefs, as well as goal setting, time management, managing the environment, and maintaining attention. Further, this review also provides a broad outline of current homework theory, research, and practice and examines the roles that parents, teachers, and students play in the global effectiveness and benefit of this very important educational tool. It is clear that homework can be conceptualized as a self-regulatory process related to self-efficacy as a motivational belief associated with academic achievement (Ramdass & Zimmerman, 2011).

Some parents and authors report dissatisfaction with the current practice on homework whereas others advocate for the continuation of its use as an important educational tool that benefits and regulates the learning process of students without actually disrupting the socialization and developmental processes of child and adult learners. Challenging the field of education to take an active stance, this article suggests that some educational programs may be inadequately attuned to the self-regulatory needs of learners that are vital for effective learning. For instance, students engage in multiple maladaptive homework behaviors to cope with homework demands. These maladaptive behaviors call for more self-regulatory learning training for students and educators. This process should include parental involvement as well as consideration of cultural and individual differences among the students. These indicators of maladaptive behavior suggest that we must examine the knowledge, skills, and professional dispositions of educators, administrators, and parents to provide a more equitable

and democratic education for all learners, one that will result in more healthy and positive behaviors from learners.

In addition, this article demonstrates how we can use research to transform the public view of homework, which will result in a more positive disposition of learners. Particularly reflected in Cooper's (2007) meta-analysis and the calls for action from James (1899) and Pajares (Bembenutty, 2007), this article serves as a call to use the scholarly work on homework to transform our homework policies and practices. For instance, Cooper is unafraid to take an openly research-based stance to ask for changes in policies and practices associated with homework (Bembenutty, 2011; Cooper, 2007). He also invites parents to take different parental roles in order to assist children in engaging and meaningful homework assignments.

The findings of this article challenge any position that assumes that homework is detrimental to learning or that it essentially interferes with children's socialization processes or family affairs. These findings put homework at the center of the educational self-regulatory process based on high self-efficacy beliefs, appropriate teacher training, and parental assistance. Future research should continue to consider innovative interventions to promote more frequent homework submission as well as higher quality of homework. Equally important, this article provides a starting point from which to launch renewed efforts to continue examining the strengths and limitations of current homework practices.

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