Middle School Students' Perceptions Regarding the Motivation and Effectiveness of Homework

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Abstract

The purpose of this study was to understand students' perspectives on the role of homework. Middle school students ($N = 506$) volunteered to complete open-ended surveys describing their perceptions regarding the effectiveness of homework. Qualitative analysis revealed that students identified several instructional and noninstructional reasons for having to complete homework, including enhancing learning, practice, review, punishment, and assessment. Data also described issues related to time, grading, and technology. Further, analysis identified the negative feelings students expressed regarding homework assignments, teacher motivation, and infringement on the quality of family life. How both ambiguous and inconsistent homework practices diminish student commitment and effective learning is also discussed.

Key Words: middle school students, homework practices, perceptions, grading, assessment, motivation, time, assignments, differentiation, technology

Introduction

In this era of high stakes testing and intense teacher accountability, it is incumbent upon educators to identify and implement only the best practices for students' learning outcomes. For all grades, homework is a long-standing U.S. public school tradition. In acknowledging the widespread acceptance of assigning homework, the existing literature remains mixed with respect to describing

the positive relationships between homework and student achievement, grades, and test scores (Cooper, Robinson, & Patall, 2006; Trautwein & Koller, 2003). When considering homework, in spite of the most sincere efforts of parents to help children at home and the thoughtful planning of teachers to meet academic objectives, it is ultimately students' attitudes regarding their commitment toward homework that may make the critical difference toward ensuring positive learning outcomes. Homework assignments are likely to be most effective if students exercise the required effort in completing homework tasks and, in turn, identify with the positive benefits for their learning (Madjar, Shklar, & Moshe, 2016).

In an effort to contribute to the existing homework discussion, this current mixed method project describes middle school students' perceptions of the homework process. An ongoing discussion describing homework is important because existing data are lacking that focus on how students at all grade levels view or think regarding the benefit and purpose of assigning homework (Letterman, 2013; Shumow, Schmidt, & Kackar, 2008; Xu & Corno, 2003).

Literature Review

Findings describing the contributions of homework toward students' academic success are not definitive (Cooper et al., 2006). There is a range of contradictory results for both supporters and nonsupporters of homework. Acknowledging research design errors, the existing literature undermines positive claims for assigning homework (Bempechat, Li, Neier, Gillis, & Holloway, 2011).

Homework requires a time commitment for teachers, students, and parents, and time is considered as an important factor in the homework debate (Van Voorhis, 2011). The findings describing the time students spend on completing homework varies based on the particular research design, but studies indicate that time is influenced by age and subject (Cooper et al., 2006). Targeting the elementary and higher SES levels, some data indicate students may be spending too much time completing homework at the loss of afterschool activities (Kralovec & Buell, 2000; Van Voorhis, 2003). The time it takes to complete homework often creates a challenge for students who desire to socially interact in afterschool activities, participate in sports events, or play with peers in the neighborhood. In deciding the type and amount of homework, teachers may fail to consider how time affects family involvement (Van Voorhis, 2011).

In a 2008 study, Shumow, Schmidt, and Kackar explored several variables that influence adolescents' homework experience. Their findings indicated that adolescents viewed homework as less stressful and more enjoyable when they

were doing homework with peers or parents as compared with completing homework alone. At the same time, when alone, adolescents reported greater cognitive engagement than when with friends or parents. Their study also showed that student effort to perform homework was positively associated with self-esteem, grades, and expectations.

Letterman (2013) conducted research to understand students' perceptions of homework and identified factors that influenced their ideas regarding homework assignments. Findings described how students felt that homework was important to them when the instructor provided positive feedback on their assignments. Furthermore, data indicated students had a positive perception of homework when assignments became a part of the course grade or when bonus points could accumulate and contribute toward the final grade. Letterman also reported students felt favorable toward homework that was not too long or difficult to complete. Students also believed that late homework should be accepted for full credit. Finally, findings indicated students had a negative perception of homework assignments when they thought it lacked meaning and appropriateness as it related to the course materials (Letterman, 2013).

Deveci and Onder (2015) investigated the views of middle school students regarding homework assignments in science courses. Researchers concluded that students who took more time completing homework were more positive in their views toward homework assignments as contrasted with students who spent less time on science homework. Additionally, data indicated students who spent more time on reading activities had more positive views toward homework assignments than students who spent less time reading. Finally, it was discovered that students who spent more time watching TV or playing computer games had less favorable views regarding homework, and the opposite held true—less time watching TV and less time playing computer games supported more positive views toward homework assignments in science courses.

Parental involvement is another variable linked to students' perceptions toward homework as well as supporting the relationship between homework and academic achievement (Dumont, Trautwein, Nagy, & Nagengast, 2014). Parental involvement in their child's homework is the primary predictor toward effective outcomes (Bang, 2011; Dumont et al., 2014; Gonida & Cortina, 2014). Typically, during the elementary grades, parents are more closely engaged with students and are better able to gauge time involved in completing homework tasks as contrasted with parents of middle-schoolers. Seeking autonomy, middle school age students make it more difficult for parents to accurately estimate the time spent on homework.

Understanding of parental goal orientation (mastery versus performance; Madjar et al., 2016) informs the relationship between parental attitudes toward homework and student motivation. Mastery goal orientation refers to

parents focusing on self-improvement or understanding the task at hand while, contrastingly, performance goal orientation is based on competition and out-performing others. Research data indicate the notion that parents supporting mastery goal orientation positively influenced children's motivational level toward homework assignments. Findings (Madjar et al., 2016) suggested parents' attitudes highlighting the relevancy of homework and not viewing homework as an unpleasant task directly contributed to students' motivational orientations.

Conceptual Framework

While there is no coherent theoretical framework describing students' perception and motivation regarding homework, the current study is embedded in the concept of goal orientation. Goal orientation is the degree to which a person focuses on the accomplishment of a particular task (Anderman & Young, 1994). This understanding highlights the importance of middle school students believing their homework benefits their learning and achievement. Students accept responsibility to complete homework tasks and do not rely on external reasons for success or failure. Individuals with a strong goal orientation focus more on the outcome of the task and consider how this outcome may ultimately affect them in the future, and they are able to employ the required skills to succeed in completing a task (Dweck, 1986).

In the conceptual understanding of goal orientation, goals are classified as either mastery (learning) goals or performance goals (Pintrich, 2000). Students following a mastery orientation are interested in increasing their understanding and successfully accomplishing the immediate task and, in order to be effective, invest more time and effort to complete a task. These students seek patterns that promote and maintain personal challenges; students value the accomplishment of goals (Anderman & Wolters, 2006). Mastery goal oriented students enjoy their efforts to fulfill the achievement of a task. They intentionally exert more effort at academic tasks and, using effective cognitive strategies, are more engaged with their work (Anderman & Young, 1994; Woolfolk, 2010).

In completing homework, students will more likely adopt a mastery goal orientation when they have some choice and control regarding their work (Anderman & Young, 1994). Their focus is not on how much time is used in completing a task, but on mastery of the task regardless of the difficulty level. In contrast, performance goal oriented students are interested in competing in order to gain favor or avoid negative comments (Madjar et al., 2016). The performance goal orientation focus is characterized by practices of avoidance and low persistence in the face of difficulty. Students associated with performance goal focus are more likely to have anxiety and negative self-concept

when facing challenging tasks (Anderman & Young, 1994). Performance goal oriented students perform only when capable to obtain favorable feedback or if able to conceal their actual ability to achieve. Performance goal orientation results in students choosing to engage in easier and less complex tasks instead of assuming more difficult challenges.

Barron and Harackiewicz (2003) examined achievement goals in a class that promoted critical thinking, writing, oral presentation skills, and participation. Students who were performance goal focused earned higher grades, but their level of interest decreased by the end of the grading term. In contrast, those students whose focus was mastery goal orientation demonstrated increased interest across time.

Neilson (2005) constructed a model to describe the amount of homework with respect to students' test performance. Depending on time constraints, Neilson highlighted how homework differentially influences students' success. He bases his argument on four assumptions: (a) students vary in ability; (b) at least in small amounts, homework is beneficial; (c) students will require different amounts of time to complete homework; and (d) all students have time constraints. Neilson frames his discussion by asserting that some students will be better at some subjects than others and, consequently, require less time to complete homework tasks in their favored subjects. Homework assignments help the more able students and, at the same time, drive a greater difference between competent and challenged students. Neilson argues that the key is to balance assigning homework without pressing a student to confront their time constraint; time constraint refers to the tension between time needed and an individual learner's ability.

With respect to assigning homework, it is critical to acknowledge that afterschool experiences may richly contribute to children's social, emotional, physical, and cognitive learning and development (Frost, Reifel, & Wortham, 2005). Afterschool activities might include extracurricular clubs, team sports, or family responsibilities including babysitting or household chores. With respect to goal orientation, in order to promote students' engagement in successful completion of homework and advancement of learning, the authors suggest teachers more intentionally consider students as unique learners.

Method

Participants and Instrument

The intent of this study was to describe middle school students' thinking and feeling regarding their homework assignments. Sixth through eighth grade students (N = 506) from four middle schools, located in a metropolitan area

in the Southeastern United States, volunteered to complete surveys (see Table 1). A building administrator in each school distributed, collected, and returned surveys to the researchers.

Table 1. Students' Demographics

Gender	Grade Level (Age in Years)				
	Fifth (11)	Sixth (12)	Seventh (13)	Eighth (14,15)	Total
Male	24	84	43	99	250
Female	37	57	65	87	246
No Data		1	2	7	10
Total	61	142	110	193	506

The instrument included seven open-ended questions. Using goal orientation as the conceptual framework, the researchers intentionally created these seven questions to best represent issues related to homework as described in the existing literature. In order to compare and contrast responses with current and relevant findings, the intent was to elicit students' thinking and feeling about homework assignments. Questions included:

1. Why do you think teachers give you homework?
2. Who do you think makes your teacher give you homework?
3. How much time do you spend each week doing homework?
4. Does your teacher ever give you homework that needs technology like Internet or word processing?
5. How does your teacher grade your homework?
6. How much does your homework count in your final grade?
7. Anything else you would like to tell us about homework?

Analysis

Initially, the two researchers, using the constant comparative method, independently coded all narrative responses (LeCompte & Preissle, 1993). Next, the researchers jointly coded the data. They shared interpretations and identified common category names emerging from the data. Next, particular student responses that most effectively represented each category name were identified. Then the two coders reviewed for consistency with respect to category labels, descriptions, and participants' supportive narratives. Finally, narratives were reviewed for any inconsistencies.

Through these layers of qualitative coding, labels and categories shaped the following quantitative analysis. For descriptive purposes, categories in questions one through six were assigned a numerical value. For question one, coding

revealed categories as follows: help learn, have to (busy work/grades), practice/ review, improve, and punishment. For question five, general categories were identified as: teacher, students, combination of teacher and student, participation/completion, and accuracy. For question six, students reported a range from not counted to count as more than 50% of final grade. Numerical values were assigned to questions two, three, and four in response to categories given on the survey. For question seven, three categories emerged from students who responded: homework is good, homework is bad, or ambivalent.

Results

Originating from the existing homework literature and guided by the goal orientation as conceptual framework, researchers designed seven intentional questions to determine students' thinking and feeling regarding homework. This section will describe the results question by question.

Question 1: Why do you think teachers give you homework?

In response to question one, students' comments revealed several categories describing their thinking for doing homework (see Table 2). Students' narrative examples included responses such as "It helps us learn," "So we can learn and show what we know," and "So we can have it in our heads." Two subcategories in defining why teachers assign homework referred to "busy work" and "assigning grades." The "have to/busy work/grades" category describes several reasons students believe teachers are obliged to assign homework. Some of the examples included: "Their boss tells them to," and "Because she has to."

Table 2. Categories for Doing Homework

Age (Grade)	Gender[1]				Categories[2]								
	F	M	ND		1	2	3	4	5	6	7	8	Total
11 (Fifth)	37	24		61	30	4	14	3	3	7	0		61
12 (Sixth)	57	84	1	142	51	13	28	12	5	20	13		142
13 (Seventh)	65	43	2	110	31	14	22	3	15	10	13		110
14 (Eighth)	82	90	4	176	55	24	37	2	20	20	18		176
15 (Multiple)	5	9		15	2	2	3	0	5	3	0		15
No Data			2	2		1		1					2
Total	246	250	10		169	58	104	21	48	60	44	2	506

[1]Gender: F=Female; M=Male; ND=No Data
[2]Categories: 1. Help learn; 2. Busy work/Have to/Grades; 3. Practice/Review; 4. Improve/ Get better/Get smarter; 5. Punishment; 6. Assessment; 7. Indiscernible; and 8. No data (ND)

The category identified as "practice/review" included students' responses describing homework as preparation for the future: "To have extra practice to prepare us for high school," and "so you can practice on that topic and get better and be prepared for whatever comes your way." A similar category titled "improve/get better/get smarter" included narrative examples such as: "for us to get better knowledge," "to get better," and "to help us with work." For the category labeled as "punishment," the following examples were identified: "Because they want us to learn but suffer," "Cuz she is in a bad mood or she does not like our class," and "She had a bad day."

The following reflects the quantitative results based on the categories previously mentioned in Table 2. Quantitative results show the frequency by age and gender in each category. The percentage (rounded) of students reporting in each category is as follows: help learn (169, 33%), practice/ review (104, 21%), busy work/have to/grades (58, 12%), assessment (60, 12%), punishment (48, 10%), improve/get better/get smarter (21, 4%), and a final category labeled as indiscernible (46, 8%), meaning that there was not enough information given to make a determination. There were no significant differences emerging regarding gender or grade level among these categories.

Question 2: Who do you think makes your teacher give you homework?

While all students (506) responded to the question regarding students' perceptions on who assigned homework, eight responses were not included in the analysis because of missing data. Overwhelmingly, 60% (301) of students indicated that homework was assigned by a combination of principal, district, parents, and teacher (see Table 3).

Table 3. Student Frequency Regarding Who Assigns Homework

	Principal	District	Parents	Not Mandated	Others	Combination	Total
Female	24	35	0	0	29	158	246
Male	22	49	1	3	38	143	256
Total	46	84	1	3	67	301	502

Question 3: How much time do you spend each week doing homework?

The researchers recorded the time each student indicated they spent doing homework per week. Students indicated a wide range regarding the amount of time. Some students indicated as much as nine hours per week completing homework assignments, while others indicated zero hours. There was an average of 3.45 hours calculated among all 506 respondents.

Question 4: Does your teacher ever give you homework that needs technology like Internet or word processing?

The researchers repeated the coding procedures and, in addition to a yes or no response, added a category of "sometimes." There were four students (less than 1 percent) who did not respond, and these missing data were not included in the analysis. Of responding students, 49% (246) indicated technology was required for homework, while 24% (120) indicated technology was not required. An additional 27% (136) indicated technology was used sometimes; however, "sometimes" was not described or explained.

Question 5: How does your teacher grade your homework?

For question five, the category identifying the teacher as sole grader (teacher), students responded: "counts once for whatever grade we got," "by checking it," and "by taking it up." When students described their student role in grading homework, they responded (students): "we grade it," and "grade it in class after switching with a neighbor." A category included both the teacher and students grading homework (teacher/students combined). Examples of the combination category included: "with class," and "we pass it to other people, and the teacher tells us the answer."

A category described the emphasis placed on grading homework for evidence of student participation/completion. Examples included: "sometimes effort and regular, and also she makes us trade papers, and we grade them." Specifically, students' responses referred to assessing for accuracy. This category, identified as "accuracy," included the following students' comments: "by marking off wrong answer," "she uses a grading scale," and "they do it by grading how many answers we got correct."

Students' comments sometimes combined participation and accuracy. Students' responses included: "participation grade or average grade," and "participation grade sometimes, and a regular grade sometimes." Additionally, a category identified as "other" includes a range of students' understandings of assessing homework. Examples included student reporting: "it depends on which teacher," "I don't know," and "in different ways depending on what is easier for them."

A total of 506 students gave a response to question five. Surprisingly, only 8% (42) of students' responses indicated the teacher was sole grader of homework, 6% (28) of students identified students as the sole grader of homework, and 4% (22) indicated a combination of teacher and students grading homework. For the category described as participation/completion, 10% (49) responded. The largest percentage of students, 30% (150), stated accuracy or

"how many answers students got correct" was the goal for grading homework. A sixth category defined as participation and accuracy showed 11% (57). A seventh category labeled as "other" refers to a range of students' understanding of assessing homework and included 24% (119) of responses. The remaining 7% (39) of students' data were indiscernible.

Question 6: How much does your homework count in your final grade? Is there a percentage?

Five categories emerged based on students' responses to the question: (1) less than 25% of grade; (2) between 26% and 50%; (3) more than 51%; (4) not counted/other; and (5) indiscernible/no data. Students' data in category five were not included in analysis. About one-third (32%; 162) of students reported homework was not counted and was used for other reasons not specified. Many (27%; 134) students stated homework counted 26%–50% of their final grade. Another 22% (113) of students stated homework counted 25% or less toward a final grade. Some (16%; 79) students indicated homework counted more than 51% of their final grade.

Question 7: Anything else you would like to tell us about homework?

Students' responses for the open-ended seventh question described their favorable (good) feelings about homework. Answers from students in the category identified as "good" included: "homework is good for us because it helps us understand more," "the teacher gives us just the right amount of homework every day," "I think we get a good amount of homework," and "I really do like having homework because it educates me."

In contrast, students also responded negatively to teachers assigning homework. The category identified as "bad" included: "I do not like homework. We should not have any homework after school because we spend 8 hours at school every day," "they give us too much sometimes," "it is sometimes very confusing," and "it doesn't help me, because if the teacher doesn't explain it well in class, then I don't know how to do it at home and I struggle."

Finally, a category identified as "ambivalent" described students' mixed feelings regarding homework. Examples included: "homework is ok but takes some time to finish; I think more in class work would be better than homework," "I really dislike bookwork, but I don't mind worksheets all that much," and "It is annoying, but I know it helps us to learn what we need to learn."

Discussion

Homework remains a core part of middle school students' learning experience. Despite the extraordinary time and effort students, parents, and teachers contribute toward the homework process, do the means justify an effective end? In an effort to understand the homework issue, this project began with an exploration of middle school students' perceptions regarding aspects related to homework. These current data describe middle school students' perceptions of how homework supports or undermines their learning process. Current project data indicate, while some students believe homework is designed to support their learning, other data show students are not convinced of the learning benefit of homework. Some students' narratives described homework assignments as preparing them for high school, nurturing their overall thinking, and helping them to retain information. Consistent with a mastery goal orientation focus, these students indicated a belief they are in control of their learning and that, through homework, they can assume responsibility toward improving their knowledge. In contrast, other students described homework as irrelevant, arbitrary, and punitive.

With respect to irrelevance, a large number of students described their completing homework as "busywork." Busywork is most often a general assignment, not related to individual students' needs, and not promoting mastery learning (Cordoba, 2013; Hong, Wan, & Yun, 2001). With respect to the "ambiguity" category, collapsing the data from questions one and two showed that students overwhelmingly are unclear as to who mandates the assigning of homework.

McMillan (2011) described the primary purpose for homework as providing extra practice in applying knowledge and skills taught during instructional time. Additional homework is designed to extend student learning and check for students' understanding. In order to establish fidelity for learning, the direct relationship across class content, homework assignment, and individual student need must clearly be understood by both the teacher and the student. In this way, students understand why practicing particular strategies and reviewing individual assignments are designed to support their unique needs and abilities. Many students indicated their understanding of the importance of homework as both an instructional follow-up and as preparation for the future. However, without the teacher establishing this crucial link across school learning, homework, and future achievement, students perceiving a lack of relevance and control are less likely to commit their full efforts.

Despite the relatively small number, students reporting homework as a punitive measure is disturbing. Any instructional strategy that associates learning as punishment does not nurture students' emerging sense of responsibility.

Assuming responsibility for individual learning is crucial toward an understanding of mastery and not mere performance. Practice and review are not punishment, but are required as lifelong learning strategies, hopefully recognized as students develop an understanding of their unique abilities. Mastering particular subjects will require students to extend different amounts of time and require a range of varied efforts.

With respect to the range of data identifying time reported by students in completing homework assignments, the researchers were not surprised. As Nielson (2005) pointed out, it is reasonable to assume the time needed to complete an assignment will vary depending on the individual student's ability. Lower ability students may require more time in particular subjects for completion than higher ability students may require. In a 2011 study, Kackar, Shumow, Schmidt, and Grzetich indicated that the amount of time adolescents spent on homework was associated with age, location, and who the student was with when they did homework. Overall, they reported adolescents spend between 2.2 and 3.7 hours each day on homework. Their findings described a significant effect of age with regards to the amount of time spent doing homework. They also reported a significant effect with gender and location and the amount of time spent on homework. Their findings further indicated that older adolescents spent more time doing homework alone than younger adolescents, and girls spent more time working with peers than boys.

With respect to the current data, researchers caution that without differentiating assignments, the time described by students becomes additionally problematic. Without knowing whether or not homework targeted particular students' needs, it is uncertain whether the time reported by students was of quality effort. Participating students did describe homework as demanding excessive amounts of time and effort. Students, using quite descriptive and plaintiff language, described the need for "a life." They identified sports, leisure, and "down time" as important to a quality afterschool experience. Considering the issues related to extracurricular activities, sports events, and neighborhood play, it remains crucial that educators consider the holistic needs of students (Frost et al., 2005).

With respect to the middle school students' responses describing the use of technology, researchers, aware of the range of students' SES, were surprised at the large number of students required to use technology to complete homework assignments. Although not reported in the findings, whether the technology was used to gather initial information or used to represent the final product, students not having convenient technical access are at a critical disadvantage.

Additional data describing how homework assignments are assessed indicate further confusion and disparity. Many students claimed they did not

even know how homework was assessed. This finding is particularly perplexing when data also revealed homework counted as much as 50% toward some students' final grades. If teachers are to significantly weigh homework assignments into the final grade, then why are teachers not more involved in the evaluation process? Also, related to a professional concern, students' descriptions of homework tasks report that accuracy counts more than reflective projects or essay writing. In other words, regard for critical thinking, reflection, and insight were not indicated as integrated into the homework assignments.

Letterman (2013) provides some insight with respect to the current findings. He described how students felt homework was important to them when instructors provided positive feedback on their assignments. Furthermore, his data indicated students had a positive perception of homework when assignments became a part of the course evaluation or when bonus points could accumulate and contribute toward final grades. Letterman also reported students felt favorable toward homework that was not too long or difficult to complete. The current study similarly describes how students had a negative perception of homework assignments when they thought it to be "busywork" and lacked meaning and appropriateness as it related to the course materials.

Despite Letterman's (2013) research describing how homework can significantly contribute to students' learning and the final grade, the current findings do not support the notion that the feedback was as deeply relevant and descriptive as is needed to support students' mastery goal orientation leading to academic achievement. The fact that the majority of the homework assignments were not graded by the teacher suggest less than relevant feedback for individual students. The current study suggests this disconnect may be undermining the potential of homework to contribute to long-term subject mastery practices and to the negative shaping of short-term performance goal orientation.

Cooper (1989) suggests students who do homework are likely to attain better grades and improve achievement scores. The homework literature indicates the more time spent rehearsing the learning, the greater the chance of moving information into permanent recall. However, despite the research–evidence link between homework completion and improved grades and/or higher achievement scores, the current data did not demonstrate whether the ways in which homework assignments are currently created and assessed contribute to middle school students' conviction that homework is assigned on their behalf.

Advocates who strongly support homework argue that this afterschool activity is intended to increase study time; therefore, homework is perceived as enhancing achievement (Paschal, Weinstein, & Walberg, 1984; Trautwein & Koller, 2003). Study time is a combination of time in and outside of school. Carroll also (1984) linked achievement to study time. Not negating other

variables associated with study time, the current study's data suggest a lack of teacher understanding regarding the link between time spent on meaningful learning and "just busywork."

Data collected for this study were not clear in describing the link between time for completing homework and the perceived benefits for middle school students. Several existing studies suggest time on homework and achievement is age related—stronger for secondary students than middle and elementary students (Cooper et al., 2006; Van Voorhis, 2011). Acknowledging there are no systematic data describing the most effective homework implementation practices and understanding the vast range of students' individual differences, homework remains a confounding issue.

Implications

Considering the adolescent culture of the middle school learner, the current data suggest there may be insufficient teacher attention given to the planning, implementation, and evaluation of homework. With respect to the need to promote middle-schoolers' sense of mastery and not performance learning, teachers might reconsider their targeted content and assessment strategies. Reflecting back upon the existing literature, conceptual framework, and current project data, in order for students to benefit from the homework experience, the assignments might be tailored to be within each learner's individual capacity and potential interest. The teacher, in preparing the homework, balances students' prior knowledge, aptitude, and effort. With this differentiation, teachers support students as they balance their motivation, time, and effort. Consequently, students are better able to adopt a mastery goal orientation.

Middle school-age students clearly represent an extensive and diverse range of cognitive, emotional, and social abilities. Some students are motivated to complete homework if they are allowed to work with a peer or in peer groups. These data suggest that creating homework assignments involving a social context may be beneficial (Cordoba, 2013; Hong, 2001; Zimmerman & Kitsanas, 2005). For some students, a social group is relevant; for others, individual projects may be more beneficial. For these reasons, authors in the current study recommend homework assignments with a regard for an individual student's ability, interests, social context, and academic relevance.

Differentiating homework does not mean teachers create individual assignments for each student. What differentiating homework does mean is that the teacher considers several factors and varies assignment tasks. The teacher considers multiple preferences in a given learning environment which improves the ability to target students' needs and interests (Cooper & Tomlinson, 2006).

Learning is accomplished in more than one way; some ways are a better fit for one student than another. It is true that differentiating assignments may take additional time and effort on the part of the classroom teacher, but this effort is most beneficial for children's learning.

In order to assist teachers in planning and managing differentiating homework, technology may provide students and teachers with a range of tools. Either as individual learners or as a small group, for example, the Internet is a powerful resource for students to investigate, identify, and synthesize a range of different authors and multiple resources. Using several sources to support an argument or to justify a perspective is a noteworthy strategy in building critical thinking and reflection. Using technology, teachers could assign small group projects or contract with individuals. Software such as Google Docs and group texts, in addition to promoting collaborative work, could provide real time opportunities for peer-on-peer or teacher–student interactions. Using technology may provide students with time flexibility to mediate their busy afterschool schedules. Technology also allows students to represent their understanding in different ways. For example, instead of traditional narrative/text, students can use drawing apps, YouTube, and Prezi, allowing for embedded videos, graphics, and photographs. Additionally, whether for tutoring or additional scaffolding, the Internet provides opportunities to link students with experts in a particular field. Finally, acknowledging the number of middle school students for which a teacher may be responsible, technology supports teacher organization with numerous strategies and portfolio alternatives. Using technology to differentiate, homework may not merely provide opportunities to practice, but may become a risk-free strategy to interpret and apply information. Building on students' interests and allowing for innovation, technology may afford middle schoolers the motivation to assume ownership and move beyond initial objectives.

Homework is created to allow time for review, reinforcement, and reflection; homework tasks are not intended to stress, devalue, or undermine students' self-evaluation. In assigning homework, are teachers building on students' self-esteem and competence? Are teachers assigning homework with an awareness of individual time constraints and unique ability? Do students believe homework assignments contribute to their school learning? Are students able to balance their homework assignments with extracurricular activities?

The present study contributes to the core knowledge about how middle school students perceive homework. The issue of homework remains academically, intellectually, and socially complex. Regardless of the teacher's original intention in assigning homework, it is the student's perception of the homework process that will determine ultimate success. Therefore, in order to inform teachers' professional development, the assigning of homework should not be

taken for granted and warrants further investigation. Giving further attention to homework from this adolescent age group's perspective may support older learners toward developing improved habits for learning and life.

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