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ARE SCHOOLS MAKING WRITING A PRIORITY?

*New study shows students do not
spend enough time writing.*

Aigner Picou

ABOUT THE LEARNING AGENCY LAB

The Learning Agency Lab is a 501(c)(3) nonprofit organization that seeks to improve the effectiveness of K-12 education, especially for historically marginalized populations, by creating free or at-cost resources that are aligned to the science of learning. For more information, visit the-learning-agency-lab.com

ABOUT THE AUTHOR

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Effective writing is a critical skill for success in many aspects of life. In a [survey](#) done in 2018 by the National Association of Colleges and Employers, 82 percent of employers said it is essential that their employees have strong written communication skills. Outside of college and career, writing is an essential form of communication, from emails to tweets to texts, people are all writing a lot every day.



Though writing is an indispensable skill, students across the nation struggle to produce writing that meets college and career expectations. In 2019, 41 percent of students who took the American College Testing (ACT) exam [did not score](#) well enough to meet readiness benchmarks for a college-level English composition class. Or consider that employers find [less than half](#) of college graduates to be proficient writers.

Why haven't writing outcomes improved? While the exact answer to this question is beyond the scope of this brief, the research here provides some important insights. Specifically, we examined the survey data collected from the 2011 National Assessment of Educational Progress (NAEP) writing assessment, the most recent available.

For reference, the 2011 NAEP assessment was the first large-scale computer writing assessment done by NAEP. As part of the effort, federal researchers assessed eighth- and twelfth-graders. Each student was assigned two writing tasks that were completed in a word processing program. The writing tasks asked students to write for one of three purposes: to persuade, to explain, or to convey an experience. After the assessment, students and teachers completed surveys which provided context about students' educational experience.

The NAEP data is the only nationally representative dataset on instruction and student performance in writing. To our knowledge, this is the first time that the background survey data has been analyzed and released publicly.

There were a few important findings from this analysis.

FINDINGS

Students don't spend enough time writing.

In the same way that mastering any skill requires regular and consistent practice, students need to spend more time writing. In a [guide](#) produced by the Institute of Education Sciences (IES) on teaching students to become competent writers, the organization recommends that students in kindergarten spend at least 30 minutes per day writing. For first graders, IES recommends students spend at least 60 minutes writing per day. These recommendations were developed on suggestions from [The National Commission on Writing](#) and [research](#) by Laura Cutler, University of Delaware, and Steve Graham, Arizona State University.

Our study of the NAEP data revealed only about 25 percent of middle school students and 31 percent of high school students write about 30 minutes a day, meeting the standard set out by experts. Even worse, many students are writing below this standard, with 33 percent of middle schoolers and 34 percent high schoolers writing up to 15 minutes writing a day.

The data revealed similar results for writing completed at home. homework. While writing assignments could provide students with another opportunity to practice their writing outside of school, 41 percent of middle and 40 percent of high school students are only writing a page a week for homework.

Table 1: Percentages for grades 8 and 12 writing, by time spent writing a paragraph or more in English/language arts class

Time spent writing a paragraph or more in English/language arts class	Grade 8	Grade 12
I don't take this class	1	6
0 minutes	2	3
Up to 15 minutes	30	25
Between 15 and 30 minutes	41	35
Between 30 and 60 minutes	21	24
More than 60 minutes	4	7

Students are not spending enough time on persuasive writing.

The ability to write persuasively is critical for students as they move through college and into their careers. What's more, understanding how to craft an argument is an essential part of engaging with other people, and argument-based discourse is highly common (i.e. social media debates, opinion articles, politics, etc.)

Additionally, many of the elements of persuasive writing are present in other forms of writing. Consider research papers, where the writer is asked to form a hypothesis and explain how their research proves or disproves their hypothesis. This form of writing is inherently an argument. Despite this fact, 15 percent of eighth-grade students and 13 percent of twelfth-grade students reported writing persuasively every week. In comparison, more than a quarter of eighth-grade students, and more than a third of twelfth-grade students said that they write to explain every week.

This is corroborated by teacher reports on how often they ask students to write persuasively. Only 13 percent of eighth-grade teachers ask their students to write persuasively weekly. In comparison, 38 percent ask their students to write to explain, and 39 percent ask their students to write to convey information every week. This data displays a large gap in the types of writing teachers assign to their students. While writing for different purposes is crucial for students to become more effective writers, there should be more consistency in how much time is spent writing for various purposes.

The disparity could be due to the limited amount of time that students spend writing overall. Argumentative writing is complex and time-intensive. Ineffective school schedules could inhibit a teachers' ability to allocate time for students to do more persuasive writing.

Most students don't write enough on other subjects like social studies.

Historically writing and writing instruction are primarily associated with English/language arts courses, even though most disciplines require writing in some form. Whether it is to inform, explain, or persuade, writing pushes students to sort through their thoughts and clearly present them.

For this reason, writing across the curriculum can serve as an effective way for students to display their knowledge on a topic. It can also serve as a way for teachers to assess any gaps that may exist for their students. This is especially true in subjects like science and math. A student can memorize multiplication tables and still not have a conceptual understanding of what multiplication is. If students are asked to explain multiplication in writing, this could provide the teacher with insights into a student's understanding.

Despite this fact, it appears that little time is spent writing in other subjects. In math classes, 84 percent of eighth-graders and 68 percent of twelfth graders spend less than 30 minutes writing per week. 82 percent of eighth-graders and 68 percent of twelfth graders write less than 30 minutes a day in their social studies class. In science classes, 86 percent of eighth-graders and 60 percent of twelfth graders spend less than 30 minutes writing.

As mentioned before, writing requires a lot of practice, but that practice should not be limited to English class. If students are writing across the curriculum, they learn to write for different contexts and audiences. This would increase the amount of time students spend writing and be a powerful way to improve student learning.

Research has established that grammar instruction does not improve writing outcomes; still, Black and Hispanic students are more likely to be graded on grammar.

There is a large body of research that shows that formal, isolated grammar instruction has [little impact](#) on student writing and can even [negatively affect](#) student writing. Most experts agree that grammar is essential to writing, but when taught in a vacuum, it does not help students become better writers.

The NAEP data reflects that writing instruction is less focused on grammar instruction. Overall, a quarter of eighth-graders report that a majority of their English instruction is focused on mechanics and conventions, and only 20 percent of eighth-grade teachers report grading mainly on mechanics and conventions.

However, for Black and Hispanic students, there is a significant difference in the emphasis placed on grammar. Over a third of Black eighth-graders and a quarter of Hispanic eighth-graders report that most of their writing instruction is focused on mechanics and conventions. Additionally, 25 percent of Black and Hispanic students are graded mainly on mechanics and conventions compared to 18 percent of white students.

Table 2: Percentages for grade 8 writing, by percent time spent on mechanics and conventions, by race.

Percent time spent	Grade 8					
	White	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaska Native	Two or more races
0-10%	10	11	11	15	12	11
11-25%	42	33	35	39	42	42
26-50%	25	22	24	28	28	22
51-75%	9	13	13	7	6	12
76-90%	8	12	9	7	12	7
Over 90%	5	9	7	4	#	6

One potential explanation is that Black and Hispanic students are graded more heavily on grammar and mechanics because they are more likely to have accents, dialectic differences, or speak another language at home, which educators may classify as deficient. For example, Black students may speak African American Vernacular English (AAVE). Studies have shown that educators [view AAVE negatively](#), which can affect how they perceive and instruct students who speak this dialect. This implicit bias could creep into how teachers grade their students, causing teachers to focus more on black students’ use of grammar than other students.

There are considerable differences in keypresses across demographic subgroups on the NAEP assessment.

For the first time, the NAEP assessment went digital in 2011. As part of the assessment, researchers recorded the keypresses of students. While the number of keypresses a student makes does not directly indicate the length of an essay, it has implications for a student's digital fluency, or their ability to use technology.

The number of keypresses is notable because there is a high correlation between keypresses and achievement levels in writing. Over 70 percent of students who made 4001 or more key presses fell into the proficient or advanced category. In comparison, 90 percent of students who made 0-1000 keypresses fell below basic.

However, in looking across demographic subgroups, there are large discrepancies in the number of keypresses made. For example, 93 percent of eighth-grade and 97 percent of twelfth-grade ELLs make under 3,000 keypresses compared to 78 percent and 82 percent of non-ELL twelfth graders, respectively. 87 percent of eighth-grade and 90 percent of twelfth-grade students who qualify for free or reduced lunch make 3,000 keypresses or less compared to 73 percent, and 78 percent of students who do not qualify.

This data suggests that vulnerable populations may be less digitally fluent, which comes as no surprise. Consider low-income students who may not have access to a computer at home, limiting their opportunities to practice typing. Or ELL students who are used to typing in a different language on a non-American keyboard.

While more data on precise word processing actions would be necessary to examine the correlation between keypresses and writing outcomes, these disparities are hard to ignore.

IMPLICATIONS

The NAEP survey data suggests that schools have still not made writing a priority. In order to boost outcomes in writing, schools need to give writing more time and attention. Increasing the amount of time students spend writing, both at home and school has significant implications for improving writing outcomes. Providing students with many and different opportunities to write, builds familiarity with the writing process. If students are comfortable with writing, they are likely to become stronger, better writers.

Furthermore, there needs to be more focus on addressing vulnerable populations' needs when it comes to writing. Black, Hispanic, low-income students and ELLs perform at significantly lower rates. These numbers are simply too low, and for these students, many obstacles can interfere with writing instruction that goes beyond writing.

For one, Black and Hispanic students are [more likely](#) to experience bias from their teachers. These biases, like the belief that a student will not succeed, can have severe consequences. If a teacher has lower expectations for specific students, that can manifest in how they interact with their students through instruction and grading. The combination of these factors can decrease student motivation and interest in writing, leading to lower achievement in writing.

Low-income students are less likely to have computer access both in and out of school, meaning they may have fewer opportunities to use word processing software, which is [tied](#) to positive writing outcomes. Limited access to computers means fewer chances to practice and develop their typing skills. For computer-based assessments, adequate typing skills directly correlate to higher achievement levels, so low-income students may suffer as a result of limited access to computers.

In addition to this, students in high poverty schools tend to have larger classroom sizes, meaning by default, teachers have less time for each student. These students are likely receiving less personalized instruction than a student in a school with smaller classroom sizes.

ELL students also face several challenges when it comes to writing. Cultural differences could cause a student to write in a different model than what is expected for a course or an exam. As a result, these students are likely to receive lower scores on their writing. Additionally, if students have comprehension or translation issues, they may need more or different types of support than most of their classmates. Teachers are already stretched thin and may not have the time necessary to adequately address their ELL students' needs.

In addition to creating more support for these populations, we need to do more on a broader scale to help students become better writers.

More research on teaching writing and analysis of student writing.

The [amount of research](#) on how to teach writing is limited compared to research on teaching other fields, like math and reading. A 2019 [review](#) of research on teaching writing found only 14 studies that met rigorous standards of research. In comparison, they found 69 studies in a [review](#) of research on reading programs.

While writing and reading are often viewed as interconnected, there is an apparent disparity in the amount of research about teaching writing. Moreso, many teachers report not feeling prepared to teach writing in their classrooms, and this lack of confidence can seep into their teaching. Increased research on how to teach writing could clarify how to improve writing outcomes for students and help to develop more widely agreed-upon strategies on how to teach writing.

Similarly, there is very little analysis of student writing as a whole. While the NAEP assessment is meant to represent the nation, it is one of a few widespread analyses on student writing. More extensive studies that look at student text could provide insights into areas where improvement is necessary and focus the conversation on those areas that students need help. Without taking a closer look at how and what students are writing, it will be difficult to create better practices that help students become stronger writers.

More emphasis on equity in writing instruction.

There is a national conversation happening about increasing equity in education. For example, the Economic Policy Institute [recommends](#) implementing strategies to increase support for less-resourced families. More recently, the National Academies of Sciences, Engineering, and Medicine [suggested](#) the need to track student performance from pre-K to 12th grade to identify inequity indicators.

While increasing equity should be addressed in all subjects, it is particularly necessary for writing teachers, as writing is a vital form of communication. As seen in the NAEP performance data, there are evident disparities in writing outcomes across different demographic subgroups.

Schools can do more to promote inclusive practices in their classrooms. For writing specifically, this could look like integrating [dialectic awareness programs](#). Programs like these can promote tolerance of linguistic differences amongst teachers and students. It can also ensure that students feel validated in the classroom, which can lead to increased motivation and interest in learning. Additionally, this could provide students with a deeper understanding of the differences between the way they speak and how they are taught to write.

Another way to increase equity in writing instruction is by implementing anti-bias training for teachers. Although diversity in schools is increasing and studies show that students [benefit](#) from teachers that look like them, [most teachers](#) are white. Teachers are not exempt from holding biases, and research shows teachers that teachers are only [slightly less biased](#) than the general population. In writing, these biases could come out in grading, like in the NAEP survey data that shows that Black and Hispanic students tend to be graded more on grammar and mechanics.

They can also come out in instruction or general treatment of students. In order to increase equity, especially in writing, it is necessary for teachers to have an awareness of the ways implicit and explicit bias present themselves. When it comes to writing, specifically, this is imperative because students are tasked with expressing themselves. If a student does not think their opinions will be valued, or they are not held to the same standard as their peers, they are likely to struggle with writing.

Better technology for teachers and students.

Increased access to computers and reliable internet could vastly improve writing outcomes for students. A [survey](#) on K-12 district connectivity found that 25 percent of districts had shared devices available for students. More concerning, only 10 percent of districts reported students having 1:1 computer access at home. Students who do not have access to a computer at home could miss out on opportunities to practice their writing at home.

Better technology would also mean more access to writing tools, which can help students as they learn to write and support teachers in their instruction. These assisted writing tools, like MI Write or Revision Assistant, can help cut down on the amount of time it takes for teachers to provide feedback, thus giving them more opportunities to practice their writing. However, the field of assisted writing feedback tools is new and developing. Many of the tools on the market are expensive or only address one aspect of writing. The creation of more robust tools has serious implications for improving writing outcomes.

METHODOLOGY

We analyzed data from the 2011 NAEP Writing Assessment. Specifically, we looked at the percentage data from the survey questionnaires, which collect information about students' educational experiences. National public school 2011 data was downloaded from the NAEP's data explorer tool for grades 8 and 12, in writing.

APPENDIX

Time spent writing a paragraph or more in English/language arts class	Grade 8	Grade 12
I don't take this class	1	6
0 minutes	2	3
Up to 15 minutes	30	25
Between 15 and 30 minutes	41	35
Between 30 and 60 minutes	21	2
More than 60 minutes	4	7

Pages written for English/language arts homework	Grade 8	Grade 12
None	10	14
Up to one page	31	26
One to three pages	41	42
Four to five pages	12	12
More than five pages	6	6

	Grade 8		
Frequency	Write to convince or persuade someone	Write to explain something	Write to convey real or imagined experience
Never or hardly ever	14	11	17
A few times a year	36	29	34
Once or twice a month	35	33	33
At least once a week	15	28	16

	Grade 12		
Frequency	Write to convince or persuade someone	Write to explain something	Write to convey real or imagined experience
Never or hardly ever	16	10	20
A few times a year	38	25	36
Once or twice a month	34	31	29
At least once a week	13	34	15

	Grade 8		
Frequency	Ask students to write to persuade	Ask students to write to explain	Ask students to write to convey information
Never or hardly ever	3	2	2
A few times a year	45	23	22
Very often	39	36	37
At least once a week	13	38	39

Time spent writing a paragraph or more in math class	Grade 8	Grade 12
I don't take this class	1	21
0 minutes	37	40
Up to 15 minutes	30	17
Between 15 and 30 minutes	17	11
Between 30 and 60 minutes	12	8
More than 60 minutes	4	3

Time spent writing a paragraph or more in social studies class	Grade 8	Grade 12
I don't take this class	2	16
0 minutes	9	11
Up to 15 minutes	42	32
Between 15 and 30 minutes	31	25
Between 30 and 60 minutes	14	13
More than 60 minutes	3	4

Time spent writing a paragraph or more in science class	Grade 8	Grade 12
I don't take this class	1	31
0 minutes	18	20
Up to 15 minutes	46	26
Between 15 and 30 minutes	22	14
Between 30 and 60 minutes	10	7
More than 60 minutes	2	2

Percent time spent	Grade 8			
	Mechanics and conventions	Effectiveness of expression	Organization of ideas	Development of ideas
0-10%	11	4	3	7
11-25%	39	32	31	35
26-50%	25	32	33	29
51-75%	10	16	16	14
76-90%	9	10	11	10
Over 90%	6	5	6	6

Percent time spent on mechanics and conventions	Grade 8					
	White	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaska Native	Two or more races
0-10%	10	11	11	15	12	11
11-25%	42	33	35	39	42	42
26-50%	25	22	24	28	28	22
51-75%	9	13	13	7	6	12
76-90%	8	12	9	7	12	7
Over 90%	5	9	7	4	#	6

Percent of grade	Grade 8			
	Mechanics and conventions	Effectiveness of expression	Organization of ideas	Development of ideas
0-10%	15	2	2	6
11-25%	43	34	30	31
26-50%	21	34	37	30
51-75%	8	13	12	15
76-90%	7	10	10	10
Over 90%	5	7	8	7

Percent of grade on mechanics and conventions by race	Grade 8					
	White	Black	Hispanic	Asian/Pacific Islander	American Indian /Alaska Native	Two or more races
0-10%	15	17	16	17	13	16
11-25%	46	39	38	45	41	44
26-50%	22	20	21	21	23	18
51-75%	8	7	10	5	12	11
76-90%	6	10	9	7	7	6
Over 90%	4	8	6	4	4	5

Number of key presses by National School Lunch Program eligibility	Grade 8		
	Eligible	Not eligible	Information not available
0-1000	10	5	8
1001-2000	44	30	36
2001-3000	33	38	38
3001-4000	10	19	12
4001 or more	3	8	6

Number of key presses by National School Lunch Program eligibility	Grade 12		
	Eligible	Not eligible	Information not available
0-1000	4	2	2
1001-2000	25	14	16
2001-3000	39	32	32
3001-4000	23	30	29
4001 or more	10	22	21

Number of key presses by status as English Language Learner	Grade 8		
	Yes	No	Formerly ELL
0-1000	17	7	6
1001-2000	51	35	43
2001-3000	25	36	34
3001-4000	6	16	11
4001 or more	1	6	5

Number of key presses by status as English Language Learner	Grade 12		
	Yes	No	Formerly ELL
0-1000	9	3	2
1001-2000	40	17	21
2001-3000	36	34	43
3001-4000	13	28	24
4001 or more	3	18	9