

MCCPTA RESOLUTION ON DIGITAL BALANCE

BACKGROUND

In March 2020, Montgomery County Public Schools closed its doors to in-person instruction due to the COVID-19 pandemic. Students were issued Chromebooks to access lessons remotely. MCPS students were required to access the curriculum almost exclusively online.

During this time, most of MCPS's ~160,000 students mandatorily spent five to six hours in front of screens during the school day. Many reported an additional three or four hours online to complete homework, communicate with teachers, read announcements and check grades. The number of digital interfaces, apps and platforms also increased during this time, with students required to use as many as a dozen *separate platforms* on any given day.

The reliance on digital resources continued in the 2021-2022 school year, in part because teachers were advised to prepare for students, classes or schools quarantining or reverting to remote learning on short notice because of COVID.

As all schools have returned fully to in-person learning, and Virtual Academy is available to those students who wish to continue learning remotely, the following resolution urges MCPS to align and institutionalize screen time expectations to support learning recovery and health now and in the future. The Resolution urges MCPS to establish best practices and policies to ensure that use of digital resources and screen time are age-appropriate; prioritize health and well-being; and are academically-vetted. It suggests that MCPS follow Maryland State Department of Education & Maryland Department of Health's Digital Best Practices (as legislated by HB1110 in 2018) as its roadmap. To support learning and health, educators should choose digital resources over non-digital only where there is an educational benefit, including accommodations.

RESOLUTION

Whereas: Excessive screen usage by children is a public health concern:

- a) According to the American Academy of Ophthalmology, excessive screen time is directly related to eye damage and conditions such as myopia, retinal detachment and strabismus;
- b) Blue light (emitted from screens) interferes with adequate quantity and quality of sleep, as it can keep the pineal gland from releasing melatonin, thus warding off sleepiness;
- c) The American Academy of Pediatrics finds that a combination of screen time and too little sleep has been associated with heightened impulsivity;

- d) A systematic review published by University College London concludes that more time spent in front of screens is associated with a higher body mass index;
- e) A Harvard T.H. Chan School of Public Health study found that 20% of teens who spend more than five hours a day in front of screens are 43% more likely to be obese compared with teens who spent less time using screened devices;
- f) Multiple studies found that screen use of more than two hours a day was correlated with depressive symptoms; after controlling for age, sex, ethnicity, parental education, geographic area, physical activity, and BMI, duration of screen time was associated with severity of depression and anxiety;
- g) A December 20, 2020 multi-university study identified excessive screen time to be associated with an increased risk of binge-eating disorder in a cohort of 9-10-year-old children;
- h) Physicians and studies report an increase in technology-induced injuries such as neck and back pain or hand strain;
- i) The 2015 National Institutes of Health's Adolescent Brain Cognitive Development (ABCD) Study, the largest ever longitudinal study on teen brain and behavioral development in the U.S., shared preliminary brain scans showing a thinning in the outer layer of the brain that processes information from the five senses, in children who spent a lot of time on screens;
- j) Experts find a correlation between screen time and tics, tic disorders and Tourette's Syndrome — because computer use increases dopamine and tics are dopamine-related — and, as a result, recommend a three week electronic fast to normalize brain chemistry;

Whereas: Studies have shown negative impacts on learning when digital materials are used excessively:

- a) Children 8 years old and younger generally comprehend storybooks better when they are in print rather than digital form, according to an analysis of 39 experimental studies published in 2021. The study found that digital texts tend to be less effective than print texts in classroom settings. Most commercially published e-books explored in the studies do not enhance the text in ways that focuses children's attention as adults naturally would when reading a story to a child, such as pointing out main story elements, asking questions, and focusing children's attention on the chain of events in a story. While interactive enhancements of e-books could bridge this gap, the study found that teachers less frequently used these interactive elements of e-books during reading group sessions.¹
- b) In a 2017 review study, University of Maryland researchers examined existing research since 1992 on reading comprehension differences between print and

¹ The study found that electronic books that use these elements tend to outperform print books in children's comprehension.

digital texts. They found that when reading texts longer than one page, the research showed better comprehension outcomes with print. The study attributes this to the disruptive effect of scrolling on screens.²

- c) Other studies find that participants reported using fewer study strategies (such as highlighting, note-taking, or bookmarking) when reading digitally. In one study, when reading in print, study participants did better answering abstract questions that required inferential reasoning; by contrast, participants scored better reading digitally when answering concrete questions.
- d) According to a 2013 study, if print and e-books cost the same, 87 percent of undergraduate and graduate students said they would prefer paper books for school over e-books, and 92 percent found paper books the easiest medium for concentration. In 2015, 65 percent of children ages 6-17 said they always prefer print books, up from 60 percent in 2012.
- e) The extended digital learning during the pandemic led to acknowledged and severe learning losses among MCPS students.
- f) Using laptops for note taking results in more shallow processing. Studies find that students who take notes on laptops perform worse on conceptual questions than students who take notes longhand.
- g) Correlational studies show that students who exceed screen time recommendations score lower on cognitive assessments;

Whereas: The over-reliance on digital learning can create systemic inequities. PTA members have reported that some parents and guardians find it more difficult to navigate digital platforms, and understand what their children are learning in school, which impairs their ability to help children with their studies. This difficulty is most apparent in secondary schools, such as in upper level math courses, where math textbooks may not be used. As the lessons of distance learning have shown, the impact of technological hurdles to family engagement disparately impact already vulnerable populations who may not have consistent Internet service at home. In some cases, providing learning materials in digital form simply shifts the cost and burden of printing from the school system to individual teachers, parents and guardians. Meanwhile, some high poverty schools have only virtual access to courses such as advanced math. While any access is better than no access, MCPS should make stronger efforts to offer ways for students to access this coursework in person to avoid the resulting inequity.

Whereas: The Wall Street Journal reports that schools see a “surge in academic dishonesty” with online classwork; Forbes reports that 60 percent of teachers find cheating more prevalent with online classwork; and another report specifies that students regularly “google answers, text friends or peek at their notes” during an exam when administered online;

² Patricia A. Alexander and Lauren M. Singer, “A new study shows that students learn way more effectively from print textbooks than screens,” *Business Insider*, Oct. 15, 2017.
http://www.businessinsider.com/students-learning-education-print-textbooks-screens-study-2017-10?utm_source=facebook&utm_content=bottom-bar&utm_term=mobile

Whereas: The 2018 Digital Best Practices, prescribed by Maryland State Department of Education and Maryland Department of Health per HB1110, stipulates that offline alternatives to screen-based learning be available;

Whereas: MCCPTA members have reported a growing concern about the shift away from physical books and other non-digital learning resources, and the amount of screen time students are experiencing, and seek to elevate these concerns to MCPS leadership. While PTAs have been collaborating with their individual schools to address these issues at the local level, instituting systemwide MCPS policies would support these efforts and ensure a consistent learning experience across the County.

Be It Resolved That:

MCCPTA recommends and supports MCPS's existing efforts to

1. Make a system-wide effort to significantly limit screen time in classrooms, unless it provides an educational benefit or helps support the learning needs of students receiving services and/or accommodations. "Educational benefit" includes but is not limited to teaching specific digital platforms or supporting the learning or other needs of students receiving services and/or accommodations such as students with disabilities and ESOL students.
2. Complete and publish MCPS's Digital Best Practices (draft), which was begun but put on hold during distance learning, and is based on the Maryland State Department of Education's 2018 Digital Best Practices, prescribed by HB1110, which recommends time limits on device use and stipulates offline alternatives be offered, and regular training on this policy conducted.
3. Expand and systematize efforts to track student screen time based on log-in histories to ensure that it is purposeful, age-appropriate and academically advantageous, and conduct an external audit to assess how often teachers and schools use or send home non-digital resources such as books, through data and surveys of teachers, students, parents and guardians.
4. Train teachers and health techs to monitor students for symptoms of overuse (i.e., headaches, eye strain, or gaming during class time).
5. Offer students an offline option that is easily accessible and does not exclude or embarrass child, and inform parents/guardians of the option to request such alternatives

when they are asked to sign the Chromebook code of conduct form at the beginning of the school year.

6. When selecting or developing new and existing curricula, ensure that the curricula provides a full complement of current/up-to-date non-digital materials, across all languages, and does not favor digital resources over non-digital resources unless an educational benefit exists (including accommodations and supports for students with learning disabilities and ESOL students). Provide guidance to schools recommending the use of existing hard copy materials to the extent possible. Textbooks are better suited to some subjects over others. For example, English, language, or math textbooks do not have to be changed as often as science or history books because their information doesn't change as frequently. Schools may use English and math textbooks for a decade or longer before they upgrade to new ones. Because new developments are constantly made in the sciences and new events happen every day that affect history, science and history books require more frequent updating. Some state-approved textbooks offer adoption cycles that provide new textbooks every five to seven years.

7. Develop curriculum guidance that includes substantial use of physical materials such as hard copy textbooks, literature, field samples and lab equipment, incorporates outdoor education and hands-on learning where appropriate, and encourages use of hard copy materials to schools and teachers unless digital versions provide an educational benefit (including accommodations and supports for students with learning disabilities and ESOL students) as compared to the hard copy version.

8. When feasible, minimize digital assessments, which may be more difficult and stressful for some children and also may result in teachers favoring “digital” practice in order to prepare students for digital assessments.

Be It further Resolved That: MCCPTA asks for immediate implementation of the following practices to curtail screen time and promote digital balance:

1. Issue guidance that, absent an educational benefit (including but not limited to teaching the use of specific digital platforms, or providing accommodations and supports for students with learning disabilities and ESOL students), schools should use existing hard copy resources for elementary age students, including books;
2. Discourage non-academic, gaming, or ‘free choice’ screen time as a reward for completion of school work, and instead reward good behavior with social interactions or physical activities; and

3. Ensure that all elementary students have physical reading material or other non-digital games such as puzzles available to them to enjoy upon completion of school work, to discourage inappropriate use of technology during “free time”