



TENNESSEE DEPARTMENT OF EDUCATION

FIRST TO THE TOP

The role of typing in the standards, PARCC and the TCAP Writing Assessment

Postsecondary educators and employers regularly cite the importance of writing and the gap between student readiness in writing and the demands of college and career. Postsecondary expectations for writing have moved entirely online (handwritten papers in post-secondary are now firmly a thing of the past), and most jobs that earn a living wage require substantial typing. The Common Core State Standards, grounded in research about skills required for opportunity, pay significant attention to writing and, in particular, cite the expectation of student skill in keyboarding.

Common Core Typing Expectations

Across K-2, students are expected to “with guidance and support from adults, use a variety of digital tools to produce and publish writing.” The first explicit mention of keyboarding skills is in grade 3. According to the writing standards, by grade 6, students must be able to “...demonstrate sufficient command of the keyboarding skills to type a minimum of three pages in a single setting.” Students must demonstrate these skills in order to meet the standards – this is no longer an add-on for some students or for some grade levels. This expectation, though a logical move to prepare our students for opportunity in today’s economy, begs many questions about transition, resources to support this learning and technology.

New Assessment Format

The PARCC assessment, reflecting the expectations of the standards, will be administered online (beginning in third grade). We have two years to prepare for PARCC and we want to use this time very wisely. Responding to feedback from educators seeking a gradual transition in a low-stakes manner, we are moving the writing assessment online this year in grades 8 and 11 (and optionally online at grade 5). While children generally adapt to technology with speed, we want to provide the support to ensure all students are able to succeed with PARCC, and this memo seeks to summarize some of the research findings and resources that we can begin to explore in this transition.

Research summary

As educators have asked questions about how the writing assessment results will be impacted by varying keyboarding skills, we have dug into the research. We worked with Measurement Inc. to better understand the impact of moving to online writing assessments in other states and did a literature review to find out what the research says about keyboard skills. A pertinent research summary is [attached here](#), and the high-level findings are as follows:

Overall, the research indicates that the students who struggled with writing in an online format are the same students who struggled with writing in a paper-based form. In other words, the research suggests that the presence of the word processor is *not* what affected student scores. The research also suggests

that many students tend to perform better in word processing than they would perform in paper-based writing. For example, students tend to do more frequent corrections and produce more words and more complex sentences when typing than they do when writing by hand.

Now, clearly, students benefit from learning how to keyboard properly. Many students can and will pick up the skill fluently on their own but instruction about hand placement and the location of the home keys helps. Furthermore, students with regular access to devices will get more practice than students without these devices in their homes and equitable access is a topic of very fair concern.

The reality, however, is that PARCC is coming, the writing assessment will be moving online to help us prepare for PARCC. In the long run, this will really help our students and our state compete, so we want to be thoughtful about how we get ready for these coming realities.

Resources and guidance to support keyboarding training (with much more coming soon!)

In preparing for PARCC we know that regular practice with the format and rigor of the new item types is the best recipe for a successful transition. The same is true for keyboarding. The research suggests that moving towards more frequent work with keyboarding will help students get ready and we encourage teachers, schools and districts to look for opportunities to incorporate this more frequently – where possible moving homework assignments and in-class instruction and assessments to word-processing. We know device limitations are a barrier in many places but we encourage educators to look for ways to leverage current technology where possible in the transition.

In the coming months we pledge to share significant information about the research about best methods for keyboarding instruction and information about programs in use in Tennessee and the strengths and weaknesses of different interventions. Right now we are gathering information about the following questions:

- When should we begin instruction about keyboarding? What is developmentally appropriate for us to expect of young children?
- What are the things that students need to be taught about keyboarding and what do they pick up with practice?
- How much practice should we be giving students? What should we continue to do in paper-format and what should we ideally move online?
- What programs are being used in Tennessee and around the country and what are the success rates?
- How can we use technology to support the use of pre-writing strategies (i.e. the use of graphic organizers, brainstorming, outlining thoughts)?

If there are other questions you would like us to investigate, please email Charlotte Woehler at Charlotte.Woehler@tn.gov.

Device and technology needs

We will also be continuing a significant, ongoing conversation about the device needs, network requirements and technology capacity required to move toward more instruction and assessment online as well as the funding sources available in the transition. Richard Charlesworth, our chief information officer, will be leading this conversation throughout the state and can be reached at Richard.Charlesworth@tn.gov.

How to balance TCAP and writing

With the writing assessment no longer part of our “high stakes” suite, some educators have said they intend to focus solely on the SPIs on the TCAP, and we wanted to offer a note of caution about this. Writing is the synthesis of language skills. In order to succeed with the text-based writing prompts on our new writing assessment and PARCC, students must be able to read, cite evidence, organize thinking and express thoughts in language. Teaching SPIs discretely does not require or support students in achieving this higher order thinking and making connections across the strands of literacy. We know that too many of our students are graduating without the writing skills they need to compete in college and careers, and we want to use this transition to deepen the support we are providing for exactly these skills. Even if it is counterintuitive, we know that many of the schools that made the biggest gains on TCAP (and the countries that are fastest improving across the world) focus on going deeper into content – they did not perpetuate a race through a mile-wide curriculum but required students to deeply master complex content. Successfully mastering the skills required to excel on the writing assessment will strongly prepare students to succeed with the kind of questions on the TCAP and EOC exams. We encourage educators to prioritize student practice and feedback in substantive text-based writing as exactly the kind of instruction that will improve student readiness and success for PARCC, for the writing assessment and for success with TCAP/EOC exams.