

STUDENT VOICES from AP CSP

Addressing Challenges Related to Focus, Attention, and Pacing

About Our Student Partners

Over the 2016-2017 school year, **13 student research partners** enrolled in AP Computer Science Principles (CSP) at Wolcott School shared their successes and challenges in the course during every-other-week interviews with the Outlier research team.

Keep in mind that while our student partners were enrolled in an AP CSP course using the Code.org curriculum, the challenges they identified could occur in *any* high school CS course and for *any* student, not just those with diagnosed learning and attention disorders.

164 total student interviews

STUDENTS:

- were in 10th – 12th grade.
- had varying levels of prior experience with computer science.
- had at least one diagnosed learning or attention disorder.

62% ADHD/Executive Function,
54% Writing, 46% Reading,
31% Math, 15% Language.

What We Heard: Common Challenges Related to Focus, Attention, and Pacing

With my ADHD, it's harder for me to sit there, focus, and try to follow along unless I'm actually doing something...then I'll be on task.

Students needed more time to reflect on, understand, and process new material.

Some students were easily distracted by the other students in the class.

We don't get a lot of time to do stuff. We have to do things quickly, which is frustrating... I do things slower. Everyone else is done and I need them to wait.

Some students had trouble staying focused when studying for the AP CSP exam.



It was hard for some students to sustain their attention to complete long-term projects and independent work.

Focus, Attention and Pacing was a challenge for 10 of the 13 students in the AP CSP course.

How to Help

Addressing Focus, Attention, and Pacing Challenges in CS Classrooms

The following recommendations are informed by research-based practices for supporting students who learn differently, combined with the practical expertise of our team learning specialists and study findings.

Provide students with **additional time** for assignments, projects, and tests, where needed. In particular, provide more time for introducing new vocabulary and concepts than what is suggested in the instructional materials.

Circulate and provide support to students who may be having significant difficulty initiating or making progress on **independent tasks or projects**. For example, some students may need specific guidance around selecting a project topic, identifying necessary work steps, and sustaining an appropriate pace to complete the work on schedule.

To help students focus during **exam prep**, use the CSP reference exam sheet and add an additional column to show the code they used in class and the pseudo-code that will appear on the exam, side-by-side. Use two different colors to differentiate the one from the other. Build the sheet as a foldable.

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