## Making the Case for Teaching Executive Function Skills in Secondary Education

How to get the buy-in and budget to implement an Executive Function curriculum





S uccess in school depends on well-developed work habits, a positive mindset, a flexible attitude and a willingness to work hard. These traits are known as Executive Function (EF), which is defined by the <u>Center on the Developing</u> <u>Child at Harvard University</u> as "the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully."

Executive Function skills are interconnected with social-emotional learning (SEL), which is the process through which individuals understand and manage emotions, show empathy, set goals, maintain positive relationships and make responsible decisions. The relationship between SEL and EF can be seen as one in which Executive Function facilitates the taking in of salient information and the weighing of options to make the best decision, while SEL layers contextual awareness on top of the decision-making process, optimizing the decision by accounting for environmental and social norms, as well as for the needs of others.

<u>Research</u> strongly supports positive associations between performance-based measures of Executive Functioning and academic achievement. To better understand how secondary schools teach Executive Functions, where gaps might be and how those gaps can be filled, ExQ surveyed 134 education leaders on their attitudes toward Executive Function skills and what barriers need to be overcome to implement an EF curriculum in middle and high schools.

Here's what we uncovered.

#### About the research

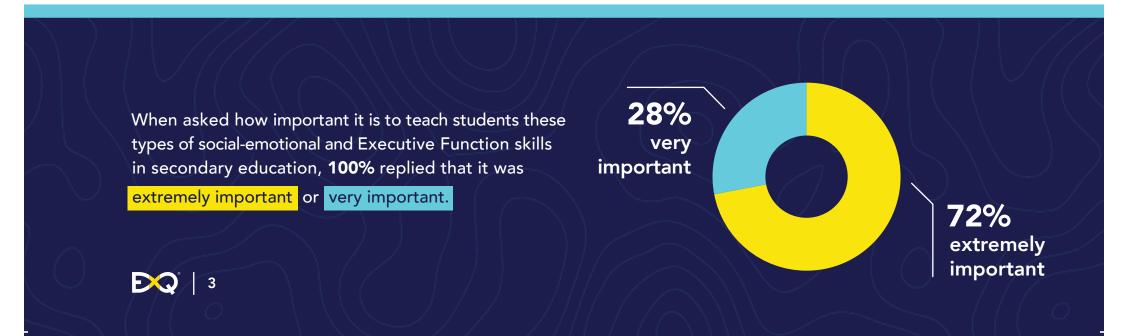
In June 2020, ExQ surveyed 134 education leaders and district administrators on the topic of teaching Executive Function skills.



# Educators recognize the value of Executive Function skills

Without a doubt, educators know that Executive Function skills and SEL are paramount to students' academic success. When asked how important it is to teach students these types of social-emotional and Executive Function skills in secondary education, 100% replied that it was extremely important (72%) or very important (28%).

Yet, while the value of teaching these skills to students is recognized, widespread, explicit teaching of these skills is not a part of the core curriculum in secondary classrooms and schools. Of the 12 skills listed, only one—recognizing strengths—was taught by 60% of respondents. The majority of the skills were taught at less than half of respondents' schools, and 12% of respondents said their school did not teach any Executive Function skills.



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Which areas of social-emotional and Executive Function skills are taught through formal lessons as part of core curriculum in your classrooms and school?



As researchers noted in one <u>study</u> on teaching Executive Function skills to middle school students, "the organization of materials and task completion are particularly important when middle school students are experiencing changes between multiple classes and teachers for the first time in their lives. Similarly, emotional control and connectedness feelings can be important factors in creating and maintaining supportive peer and adult relationships."

However, according to Sucheta Kamath, founder and CEO of ExQ®, one reason teachers and schools don't explicitly focus on teaching Executive Function skills is that they think about a student's readiness to participate, and not a student's ability to manage learning. For example, teachers may assign a project and discuss due dates and project expectations, but they won't teach students Executive Function skills, such as how to create and manage deadlines, or prioritize what needs to be done in order to complete the project on time.

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## Proving academic outcomes can influence getting buy-in

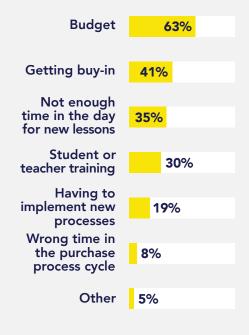
Even though support for the need for students to learn Executive Function skills is overwhelming, budget (63%), buy-in (41%) and not enough time (35%) were cited as barriers to buying a new curriculum or learning tool that could support the teaching of Executive Function skills.

One way to get over the buy-in hurdle, which is often linked to budget, is to prove academic outcomes. Of those respondents whose schools teach Executive Function skills, 98% believed that it was extremely or very important to prove academic outcomes.



However, there is a disconnect between how schools measure and align academic outcomes and the effect that acquiring Executive Function skills has on students.

"When you get a grade on a math test, it doesn't tell you how the student studied for the test. So there's nothing that indicates test-taking skills and selfdesigned math strategies. If you grade students' projects, you cannot tell how they planned and organized their materials or how much advance notice they gave their parents to get the poster," Kamath said. "So there's a disconnect between the Executive Function skills needed to learn and manage learning goals versus the way we measure academic progress." When considering purchasing a new curriculum or learning tools, what are the two biggest barriers to purchase?



To better align the teaching of Executive Function skills with outcomes, educators need a way to collect and share data around Executive Function skills. This might look like having students take a baseline assessment of their Executive Function skills, which can identify their challenges and strengths. Then, using a program that provides subject-agnostic Executive Function skill-building tasks based on each individual student's strengths and challenges, educators can begin to measure a meaningful correlation between students' improving in Executive Function and improvements in student behavior, work habits, and eventually, grades.

"If we give teachers a tool that is well-prepared, that goes into these deeper skill-sets, is individualized for every student and dynamically adapts to student responses through feedback that is specific, frequent and relevant, the students begin to learn from their mistakes and change their behaviors in and out of school," Kamath said.



Additionally, teachers can see not only what each student's Executive Function strengths and challenges are but also trends across the entire class. "If a teacher knows that a majority of the students seem to have organization and planning as their strengths, that's awesome information," Kamath said. "Similarly, if the teacher knows that most of the class struggles with mental flexibility, they can prepare for students who might be less receptive to suggestions and more argumentative."

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#### Measuring Executive Function skills

With programs like ExQ, teachers can get in-depth data on students' Executive Function strengths and challenges, providing insight into class dynamics as well as on individual student's learning needs.

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#### **Executive Function**

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## Remote learning makes Executive Function skills more critical

Another reason Executive Function skills are becoming increasingly important for middle and high school students is the expansion of remote or online learning. While the COVID-19 pandemic pushed much of school online this past spring, other trends, such as the expansion of vocational or college curriculum opportunities, as well as giving high school students more flexibility to attend classes online so they can work, are also expanding the use of remote learning in secondary education.

Consequently, educators see a high correlation between the need for Executive Function skills and the ability to improve online learning. When asked how helpful it would be to have a tool that helped students improve their engagement online and offline by learning Executive Function skills—such as learning how to focus, manage goals and devise plans, use work habits, or self-monitor to meet deadlines—89% said it would be very or extremely helpful.

As one respondent noted, "In this changing world of online courses, Executive Function is imperative to keep students producing outcomes and on track in their education."

One challenge with remote learning is that it requires students to master self-regulatory skills. However, as another respondent noted, "students that are online a majority of time lack those regulation skills that are vital in learning from mistakes and controlling their emotions when not given their way."

Social learning is also often lacking in the digital space. "The eye contact, that information we get about somebody else's disapproval of our disengagement, it's completely lost in the digital space," Kamath said. "The external motivator to regulate your own self because it is for the greater collective good of the group, that kind of regulation is gone, so it's even more essential that we bring in Executive Function as a means to teach students how to regulate for the sake of regulation."



### Getting support for implementing an Executive Function skills curriculum

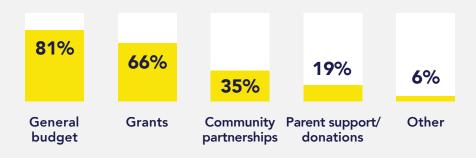
While 76% of educators gave an emphatic yes when asked if every school in the United States needed to adopt an Executive Function curriculum for all students and include it as part of professional development, achieving this objective nationwide remains challenging. However, for schools and districts that understand the value of teaching Executive Function skills and have the buy-in to do so, there are ways to bridge any funding gaps.

While general budget (81%) was the most common way to secure funding

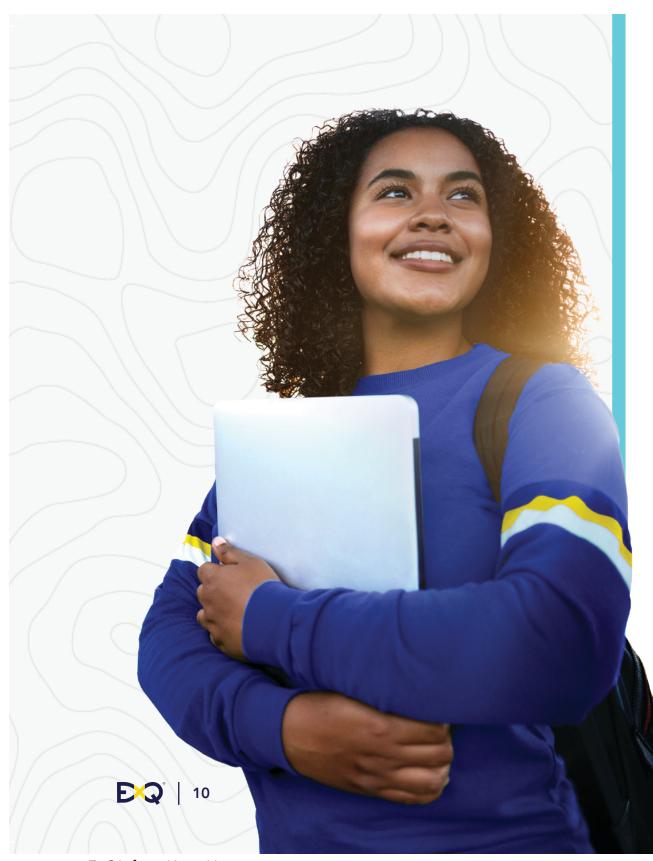
for a new curriculum or digital solution, other funding methods, such as grants (66%) or community partnerships (35%) were listed as common ways schools had been able to support new curricula like Executive Function skills.



### How do you secure funding for new curriculum or digital solutions?



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As more awareness builds around the value of how Executive Function skills improve academic outcomes, more grant-funding opportunities appear. Last year, for instance, the Bill and Melinda Gates Foundation and the Chan Zuckerberg Initiative launched a \$50 million venture to support strengthening students' Executive Function skills, including self-control and the ability to pay attention, keep track of ideas, and think flexibly as a way to improve their math skills. The current COVID-19 pandemic has also opened the door to new digital and technology grants, and it could present opportunities for schools or districts to fund a digital learning solution focused on teaching Executive Function skills as a way to support remote or hybrid learning.

## **Executive Function skills build the foundation for learning**

Much of the research on Executive Function has focused on early-elementary grades, but our survey showed that educators across the United States said there was significant value in teaching middle and high school students Executive Function skills because that's when learning shifts from recalling facts to managing goals.

"I believe most students need help with their Executive Function skills to some degree and would benefit from this training. I don't think most teachers are equipped to teach it presently," noted one survey respondent.

Given how critical Executive Function skills can be to improving students' learning outcomes, providing more professional development to teachers on how to teach Executive Function skills and explicitly teaching these skills to students can give students the tools they need to succeed today and throughout their lives. "I believe [executive function skills are] why our school district and our students have been successful in achieving 'A' status and increasing graduation rates."

Survey respondent

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Founded by Sucheta Kamath, ExQ is an online tool that is revolutionizing the learning space through gameplay and personalized cognitive and metacognitive training. ExQ is designed to align with your middle or high school's curriculum and serves as a toolset that helps your students build self-efficacy through a variety of experiential learning mechanisms.

Sucheta Kamath CEO & Founder Phone: 404.493.0962 Email: Sucheta@ExQInfiniteKnowHow.com



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