Strong⚡Minded SEL

Combining Research and Technology to Create Meaningful Social Emotional Learning Opportunities

Academic learning and cognitive growth are inherently linked with students' social and emotional development. Social and emotional learning (SEL) is often defined as the process by which children and adults acquire and effectively apply the knowledge, attitudes and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships and make responsible decisions (CASEL, 2017). An ever growing body of research indicates that students participating in well-implemented SEL programs demonstrate more positive outcomes with respect to enhanced social and emotional skills, attitudes, positive social behavior, academic performance, and lower levels of conduct problems and emotional distress (Bailey, Stickle, Brion-Meisels, & Jones, 2019; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; O'Conner, De Feyter, Carr, Luo, & Romm, 2017).

Committed to providing high-quality education and fully preparing students for college, career, and citizenship, we created StrongMinded, a supplementary social emotional learning system guided by decades of research. StrongMinded provides meaningful and engaging SEL curriculum and instruction to address five core competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Several learning opportunities are offered for each competency, resulting in over 160 SEL modules for grades 6-8 and 9-12. Each module provides instruction and practice activities meant to elicit discovery and development of important academic and life skills. Learning modules do not interfere with coursework as they are brief (about five minutes each) and include instruction, learning objectives, vocabulary, and practice activities with targeted feedback. All modules include video and/or interactive media to encourage engagement and completion.

Strong⚡Minded SEL FEATURES

Researchers and practitioners stress utilizing a developmental lens when designing and implementing social emotional learning interventions (Bronfenbrenner & Morris, 1998; McClelland, Tominey, Schmitt, & Duncan, 2017; Osher, Kidron, Brackett, Dmnicki, Jones, & Weissberg, 2016). To guide the development, implementation, and evaluation of StrongMinded we adopted the framework set forth by the Collaborative for Academic, Social, and Emotional Learning (CASEL). CASEL's framework is comprehensive and draws on developmental-contextual models, which view human development and change as taking place in a nested and interactive set of contexts (CASEL, 2017). At the center of this framework are five core social and emotional skills or competencies: two are self-oriented, two others are oriented to relationships, and one focuses on behavior. Informed by this framework, instructional activities were created and aligned to the five core competencies as well as the respective skills identified by CASEL. The activities are designed to be incorporated into

students' academic learning experiences for grade bands 6-8 and 9-12, resulting in instructional activities focused on specific, age-appropriate skills.

The StrongMinded modules are also aligned to learning standards that are fully aligned to the CASEL framework and vertically structured by grade bands, providing for a continuum of development. The content within the SEL modules offer developmental tasks that evolve as students mature. The overarching competency, such as responsible decision-making or self-awareness, continues to be a key component throughout the series, but each task associated with the construct becomes increasingly sophisticated and age specific. For example, to develop competency in self-management, all students will learn to set, monitor, adapt and evaluate goals to achieve success in school and life. Table 1 describes each of the SEL standards applied to middle school students versus high school students for the self-management competency.

SELF-MANAGEMENT	GRADES 6-8	GRADES 9-12
Set, monitor, adapt and evaluate goals to achieve success in school and life	Recognize the importance of short and long-term goals for success in school and life	Develop a plan that demonstrates an understanding of how to set and reach goals that contribute to lifelong success
	Identify school, family and community resources that may assist in achieving a goal	Utilize school, family and community or varied resources that may assist in achieving a goal
	Set a short-term school or life goal with action steps to achieve success	Set a post-secondary life goal with action steps, timeframes, and criteria for evaluating achievement
	Monitor progress toward a specified goal by developing checkpoints and adjusting the plan or action steps as needed	Evaluate progress toward achieving a specified goal and re-evaluate or adapt the plan or action steps, as needed

Social Emotional Learning Standards for Self-Management (Ohio Department of Education, 2019)   TABLE 1

FLEXIBLE STRATEGIES AND PRACTICES

Many SEL programs consist of scripted, sequenced curricula that limit the ability of educators to adapt the learning material in a way that meets the needs of individual students and classes (Bailey, Stickle, Brion-Meisels, & Jones, 2019). Regrettably, the majority of SEL interventions do not foster flexibility and fail to provide teachers with the ability to select the strategies that best fit the needs of their individual students (Jones, Bailey, Brush, & Khan, 2017).

StrongMinded was designed as a flexible and integrated approach to SEL, leveraging the expertise of teachers, whose observations and decisions are critical to providing effective and timely social emotional support for students. Through StrongMinded, teachers have the option to assign learning modules based on student scores on the WCSD-SECA, a set of instruments designed to assess social and emotional competencies (Davidson et al., 2018). However, this approach is not prescriptive, StrongMinded allows teachers to assign modules to individual students or whole classes any way they see fit, addressing both relationship-oriented and self-oriented social emotional learning objectives.

INDIVIDUALIZED LEARNING EXPERIENCES FOR STUDENTS

As with academic instruction, meeting the specific social emotional learning needs of each student is also important (Osher et al. 2016). Rather than constructing a one-size-fits-all model, StrongMind developed a SEL program designed to help individual students build upon their existing strengths and develop in areas in need of growth. This is accomplished by providing a unique SEL experience for each student. Utilizing measures of students' social emotional competencies can help educators identify areas where students are in need of support, either for individual students, specific subgroups of students, or the class as a whole

(Wrabel, Hamilton, Whitaker, & Grant, 2019). By providing a needs-based approach to SEL, students are afforded a more responsive and impactful SEL intervention.

In addition to the flexibility afforded to teachers in assigning modules, learners also have the ability to independently search for topics that meet their personal interests, needs, and goals. Through this combination of options, each student is afforded a unique learning experience.

EFFECTIVE USE OF FORMATIVE FEEDBACK

Feedback is one of the most significant tools in helping students correct misconceptions, reconstruct knowledge, enhance motivation, and improve academic achievement (Wang, & Wu, 2008). Formative feedback is information provided to a student, usually following some action on the student's part, that is intended to improve learning or performance (Shute, 2008.) Research has shown that elaborated feedback, which contains additional information about the correctness of a response, is associated with increased higher order learning (Van der Kleij, Feskens, & Eggen, 2015). Driven by this research, StrongMinded was designed to provide students with real-time, response specific feedback as they engage with practice activities in the modules. This response contingent feedback promotes cognitive processing by describing why incorrect answers are incorrect, and why the correct answer is correct.

Messaging within StrongMinded was developed based on research findings that indicate student motivation increases when provided with praise that is specific and focuses on performance and competency attainment. Through an interactive dashboard, StrongMinded provides students with praise and encouragement, recognizing their effort, progress, and achievements.

GAMIFIED LEARNING

The goal of gamification, or the use of game design elements within non-game contexts, is to foster motivation and performance (Sailer, Hense, Mayr, & Mandl, 2017). Gamified learning has been shown to significantly affect cognitive, motivational, and behavioral learning outcomes (Salier, & Homner, 2020). Performance graphs, a game design element, visually indicate progress over time, and provide sustained feedback. Performance graphs have been found to increase feelings of competence and task importance (Sailer, Hense, Mayr, & Mandl, 2017). This type of visual representation of achievement, earned within a gamified learning environment, can serve to motivate learners to continuously engage with online materials and activities designed to help them master learning outcomes (Gibson, Ostashewski, Flintoff, Grand, & Knight, 2015).

StrongMinded incorporates gamified elements, including an interactive progress meter that allows students to track progress and accomplishments as they complete and master SEL modules. In developing the gamified learning environment, the StrongMinded team was also guided by research on effectively utilizing praise to encourage students. Studies have found praise that is contingent on student performance or work has positive effects on achievement and motivation when the praise is specific and focuses on mastery or competency attainment (Emmer, 1987). As students make progress in completing modules and mastering content, characters within the environment appear to acknowledge student work, providing encouragement and motivation.

SUPPORTING PROGRAM FIDELITY

Studies have shown that the extent to which SEL program activities and components are implemented as designed varies considerably from program to program, and this variation in fidelity affects student outcomes (McClelland, Tominey, Schmitt, & Duncan, 2017). Additionally, SEL programs that encounter fewer implementation challenges have been associated with higher levels of student achievement (Durlak et al, 2011). Responses from a national teacher survey indicate that teachers recognize the importance of SEL, but most report that development of these skills is not implemented systematically in their schools. Teachers also report time and training are two of the greatest challenges to implementing SEL (Bridgeland, Bruce, & Hariharan, 2013). StrongMinded was specifically designed to address several of the most frequently cited obstacles to SEL implementation and places importance on the needs of instructors and administrators as well as students.

REDUCING TIME REQUIRED FOR IMPLEMENTATION

Many SEL programs require significant training and time commitments for implementation (Bailey, Stickle, Brion-Meisels, & Jones, 2019). While the majority of educators recognize the importance of SEL, a national survey of teachers revealed that most do not feel there is sufficient time in their schedule to take on the challenge of implementing SEL programming (Bridgeland, Bruce, & Hariharan, 2013). StrongMinded eases the burden of implementation by providing teachers with targeted, developmentally appropriate learning modules that allow for quick and seamless integration with their daily teaching practices. Once integrated, teachers can then assign SEL modules to orchestrate individualized student intervention across an entire class without monopolizing their time or efforts. Through StrongMinded, schools are able to achieve immediate and full implementation of the first day of adopting the program with minimal prep time, training, and administration.

SUPPORTING EDUCATORS WITH PROFESSIONAL DEVELOPMENT AND RESOURCES

Evaluation results of SEL interventions have demonstrated that effective programs include professional development and support for educators (McClelland, Tominey, Schmitt, & Duncan, 2017). Teachers who receive training and support are more likely to deliver content and strategies as intended by the developers (CASEL, 2012). StrongMinded provides high-quality professional development and implementation tools that aide teachers in providing meaningful SEL. A comprehensive set of resources has been created to support teachers in incorporating SEL into their classrooms. For each grade band (6-8 and 9-12), teachers are provided with:

- Social and Emotional Learning Overview, including resource links
- How-to Guide for StrongMinded including video tutorial
- Sharing Guide for SEL modules by Topic
- Sharing Guide for SEL modules by course and topic
- Activity Alignment to CASEL Standards

Teachers are supported throughout the process with detailed and informative resources to help them better understand the SEL program and how to use it for their students. The combination of resources and flexibility gives teachers the structure and confidence to implement SEL based on the unique needs of their students as well as for their entire class.

CONCLUSION

Research overwhelmingly links learners' social and emotional competencies to student outcomes and school performance. The StrongMinded team relied on decades of research in developing a supplemental learning system that delivers meaningful and engaging social emotional learning opportunities to students. We incorporated research-based best practices in constructing SEL instructional activities that are organized around a developmental model and provide a unique, individualized learning experience for each student. By combining technology with research, StrongMinded allows students to learn within a gamified environment that effectively utilizes feedback and engagement tools. The flexible strategies for delivering SEL allow teachers to meet students where they are and scaffold social emotional learning in different ways.

Also significant is the purposeful focus on addressing potential obstacles teachers and administrators often face in implementing SEL programs with fidelity. The developers of StrongMinded have addressed two of the most frequently sited barriers to implementation: time and teacher support. By providing teachers with curriculum, tools, and resources grounded in theory and research, StrongMinded facilitates SEL instruction and enables teachers to fully implement the program in the manner they feel best suits the needs of their students.

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