

"It Builds Character": Efficacy Analysis of *Character Playbook*, a Digital Social and Emotional Learning Program

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Executive Summary

Sponsored by the National Football League, the research team at Everfi conducted an efficacy study to evaluate the effectiveness of *Character Playbook*, Everfi's flagship social and emotional learning (SEL) program, on users' knowledge and skills regarding emotion management, responsible decision-making, and healthy relationship building. A total of 221 middle school and high school students recruited from three school districts participated in the study in Fall 2025. Using rigorous statistical analysis and a quasi-experimental design, the study shows that students taking the course made significant improvement in several important SEL outcomes.

- After taking the course, students had a significant increase (29%) in knowledge of basic social-emotional concepts and skills. The course was equally effective in improving the knowledge for students across genders, grades, races, and LMI status.
- After taking the course, students reported to be 12% more likely to think about consequences before actions. The course was equally effective in encouraging responsible decision-making for students across genders, grades, races, and LMI status.
- After taking the course, students' confidence in their abilities to build healthy relationships increased by 13%. Notably, students from LMI schools had significantly better post-course outcomes. Middle school students benefited more from the course on this measure than high school students did.
- Students who took the course were significantly more confident in managing their emotions and relationships. The analysis showed that students from LMI schools had significantly better improvement in emotional and relationship management.

Introduction

The transition from childhood to adolescence represents an amazing but tumultuous period of change in the developmental lifespan for individuals. It includes massive growth in terms of cognitive, physical, social, and emotional domains for those on their pathway to adulthood and so represents opportunities for great success and major pitfalls as well. As teens move from dependence to autonomy, this sensitive time frame includes variations in neurological, hormonal, and physical growth that influence attitudes and behaviors that will shape the social and emotional identity of the individual as they mature (Mastorci, et al., 2024).

This also represents a period of increased vulnerability to mental health issues including increases in reported experiences of anxiety symptoms, depressive symptoms, and major depressive disorder. The prevalence of adolescents being impacted by these issues and their rates of receiving mental health treatment have only increased over the past ten years (Mojtabai & Olfson, 2025). These experiences will have lasting repercussions on the social, physical, and academic development of these teens that they will carry into adulthood. In this way, social and emotional learning (SEL) has become one of the most necessary skillsets in the modern age for adolescent development to ensure personal well-being, academic success, and future workplace readiness (Nanda, et al., 2025).

SEL focuses on increasing the growth of a number of psycho-social competencies including emotion regulation, prosocial behaviors, self-awareness, social decision making, and relationship skills. Multiple different studies focused on meta-analysis of the research literature have shown that SEL programs delivered to children and adolescents are effective at changing students' understanding, attitudes, behaviors and even future outcomes when developed and administered correctly (Durlak, Mahoney, & Boyle, 2022; Shi & Cheung, 2024). Research has shown that SEL programs are not just a "nice to have" addition to curriculum, but an essential component for the education of youth entering an uncertain and complex future environment. Extensive SEL programs that rely on personal teacher interaction can be difficult to administer for educators with limited time, resources, and training, so more recently, schools have tended to rely on the digital implementation of this content. Cai and colleagues (2026) have shown that these digital-based interventions significantly enhance social and emotional skills and also improve prosocial behaviors. This type of instruction can also be effective in

fostering equity, diversity, and inclusion among students and staff in the school environment (Konishi, Vargas-Madriz & Tesolin, 2026).

Recognizing the importance of SEL programs delivered in a digital format for K-12 students, especially during the transition from childhood to adolescence, our study focused on evaluating the efficacy of one such course. Using a quasi-experimental design (QED), researchers compared survey and assessment data collected on the same timeline from middle and high school students who completed the *Character Playbook* course to a group of their peers without any intervention.

Overview of the *Character Playbook* Program

Character Playbook: Building Healthy Relationships is a research-informed, standards-aligned digital program intentionally designed to promote students' social and emotional development through a consistent, scalable, and developmentally appropriate learning experience. The program's approach is grounded in established social and emotional learning (SEL) research, the CASEL 5 Competencies, and extensive learner-centered research conducted during course development. The design of *Character Playbook* is informed by a comprehensive body of SEL research and implementation guidance, including benchmarks and sample practices drawn from state-level SEL frameworks and national research sources. This research establishes clear learning goals and developmental benchmarks across grade bands, ensuring that students build SEL skills progressively and in alignment with age-appropriate expectations.

Character Playbook is primarily designed for students in 6th to 9th grade and is organized into five modules aligned to the CASEL 5 Competencies: Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision-Making. Each module is approximately 10-15 minutes in length and includes clearly articulated learning objectives mapped to CASEL competencies and Bloom's taxonomy, supporting instructional rigor and consistency across implementations. Instructional strategies embedded in the program reflect evidence-based SEL practices documented in the research materials, including reflective activities, scenario-based learning, guided self-reflection, and perspective-taking exercises.

Sample activities and benchmarks identified in the research directly informed the design of interactive scenarios and reflection prompts within the course. Scenarios are intentionally designed to model healthy decision-making, emotional regulation, and bystander intervention, allowing students to practice applying SEL skills in realistic contexts. This consistent use of scenario-based learning ensures alignment between research, instructional intent, and learner experience and measurement of objectives

occurs through attitudinal and behavioral surveys that come at the beginning and end of course along with knowledge-based assessments that bookend each of the five modules of content. The development of the *Character Playbook* course, as well as this research study were sponsored by the National Football League Foundation, a non-profit organization dedicated to improving the lives of those who play and watch the sport.

Methodology

Sample

In our study, 229 students in grades 6-12 from five schools in three school districts across three states participated after approval from their parents, teachers, schools, and school districts. The study adopted a non-intrusive, quasi-experimental design where the teachers, who already planned to use the course before the study, administered the course as their regular teaching activities and asked students in the classes not using the course take the same assessments and surveys during the same time period in the Fall 2025 semester. The final sample included 221 students who completed all required tasks.

Table 1. Sample Characteristics

Male	Female
52%	48%
White	Students of Color
18%	82% (Black/African American 31%, Latinx/Hispanic 12%)
Middle School	High School
77% (6th: 2%, 7th: 23%, 8th: 52%)	23% (9th: 15%, 10th: 3%, 11th: 2%, 12th: 2%)
Low-Medium Income (LMI) School	Non-LMI School
68%	32%
Course Group: 70%	Comparison Group: 30%

Due to the quasi-experimental design, the control group did not have an equal size as the treatment group. A smaller control group in general tends to decrease the statistical power of the analysis (Serdar et al., 2021). In this case, the statistical power decreased

from 0.8 to 0.68, i.e., the probability that the analysis can detect a small-size effect, if there is any, decreased from 80% to 68%. The analysis did not find significant differences between the course and comparison groups in race composition, and distributions of gender and grades. However, the comparison group had a significantly lower proportion of students from LMI schools. Therefore, cautions are needed when evaluating the impact of LMI school status on students' learning outcomes.

Measurement

The study's primary measurement tools were the built-in course surveys and assessments, which were integrated into the program as part of the course experience. Students had the option to skip questions they preferred not to answer. Participants in the control group took the same surveys and assessments on a shell course created specifically for this study. Survey and assessment questions were aligned with National Health Education Standards (NHES), CASEL Social and Emotional Learning Competencies and Common Core State Standards (CCSS).

Due to the number of questions in the survey, an exploratory factor analysis with varimax rotation was conducted to reveal the underlying constructs and reduce the amount of data reported. According to the analysis, our survey measured four underlying constructs, which is consistent with how the survey was designed. The specific question item(s) for each construct and the internal consistency of each scale (if there are multiple items) are reported below. Besides the internal consistency, the baseline equivalence, measured by Hedge's g between the course and comparison groups, was also calculated to indicate if the participants had comparable baseline outcomes, which are prerequisites for valid testing for the effects of the program.

- **Responsible decision making** (5-point Likert Scale)
 - How often do you think about what might happen before you make a decision?
Hedge's $g = 0.18$
- **Confidence in relationship building** (5-point Likert Scale)
 - How easy is it to share what you are feeling with others?
 - How easy is it to help out others when they have disagreements?
 - How easy is it to listen to someone else's opinions even when you do not agree with them?

Cronbach's $\alpha = 0.66$

Hedge's $g = 0.14$

- **Confidence in managing emotions and relationships** (5-point Likert Scale)
 - How easy is it to get through something difficult even when you feel frustrated?
 - How easy is it to think about what you say before you speak?
 - How confident are you in handling stress from relationships or friendships?

Cronbach's alpha = 0.71

Hedge's g = 0.23

- **Self-awareness** (5-point Likert Scale)
 - How easy is it to know the emotions you feel?

Hedge's g = 0.22

- **Social-emotional skills assessment**
 - A 25-item quiz on basic social-emotional knowledge and skills (score = 0 - 100)

Cronbach's alpha = 0.72

Hedge's g = 0.15

According to the test results, all scales achieved a satisfactory internal consistency. Using the standardized thresholds suggested by What Works Clearinghouse (WWC, 2022), there was a moderate difference between the course and the comparison groups in their baseline outcomes (Hedge's $g < 0.25$ but > 0.05) in all the measurements. Following the WWC's guideline, the students' pre-study scores, genders, ages, races, and the schools' LMI status were included in our analysis to adjust for the differences.

Statistical Method

This study used the Analysis of Covariance (ANCOVA) method to evaluate the impact of the course on key learning outcomes. Analysis of Covariance (ANCOVA) is a widely used and well-established statistical method for evaluating treatment effects while controlling for baseline differences and other confounding variables which could impact the end outcomes, such as gender, race, and age. Compared to the simple pre-post comparisons, ANCOVA adjusts outcome comparisons across the treatment and control groups based on covariates, improving both precision and validity of the estimated treatment effect. It is commonly applied in experimental and observational studies, where pre-existing differences among participants may otherwise bias results.

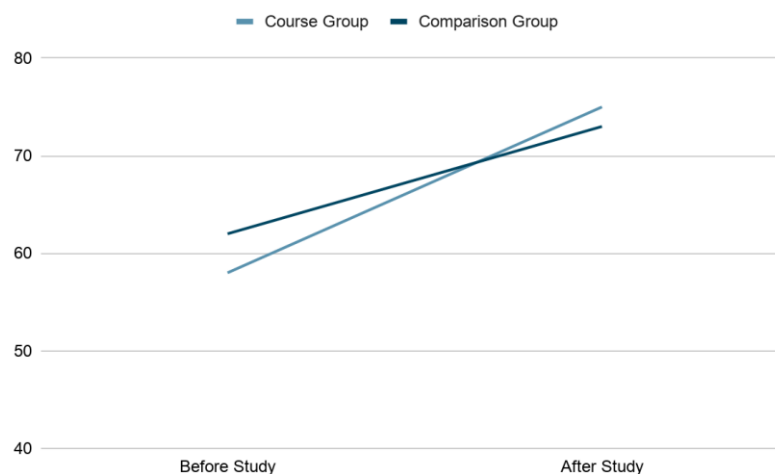
Analysis and Results

SEL Knowledge

Based on our data, it is clear that students lacked the fundamental knowledge regarding social-emotional concepts and necessary skills. Specifically, before the study, the students, on average, only scored 61/100 in the SEL assessment. Male students had significantly lower scores (56) compared to female students (65).

After students took the course, their SEL test score increased by 29% from 58 to 75 ($p = .035$). Based on the ANCOVA, controlling for the baseline outcomes and gender, grade, race and LMI status, the students in the course group had significantly better outcomes after the study than those in the control group.

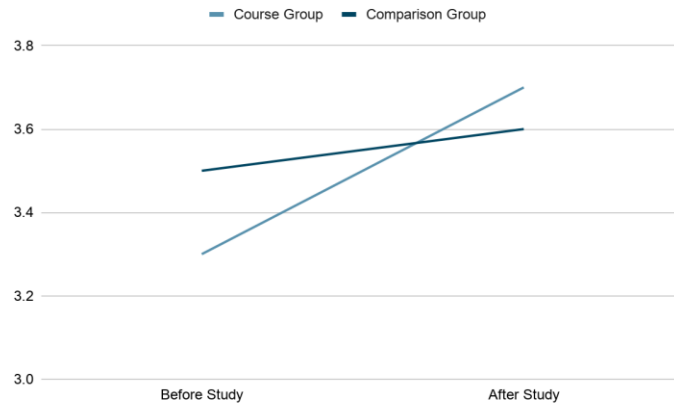
Figure 1. SEL Knowledge Test Score (0-100)



Responsible Decision-Making

The baseline analysis showed that only 50% of the students would regularly think about potential consequences before making a decision. This number does not differ significantly across gender, grade, race, and LMI status. A striking difference was found between those who took the course and those who did not in the post-study survey. Students who took the course reported to be 12% more likely to think about potential consequences before making decisions. Based on ANCOVA, after controlling for the baseline outcomes, socio-economic conditions, and demographics, the students who completed the course had significantly better learning outcomes than those who did not take the course ($p = 0.003$).

Figure 2. Frequency of Responsible Decision-Making (1 = Never, 5 = Always)

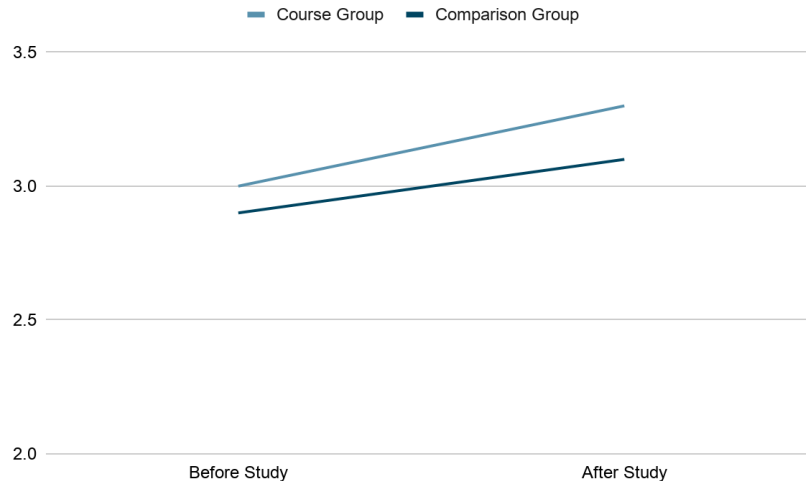


Confidence in Building Healthy Relationships

According to the baseline data, building healthy relationships was very challenging for many students. Specifically, only 37% of the students thought it was easy. Gender- and age-based gaps were also observed. Male students (39%) were more likely than female students (33%) to be confident, and high school students (44%) more likely to be confident than middle school students (34%) in their relationship building skills.

The ANCOVA showed that the course group had a 13% increase in their relationship-building skills and were significantly more confident after the study compared to the control group ($p = 0.041$). Notably, the analysis showed that the course helped narrow the age-based gap: only the middle school participants made significant improvements on this measurement. Moreover, the evidence also showed that students from LMI schools made a larger improvement (19%) than did those from non-LMI schools (10%).

Figure 3. Confidence in Building Healthy Relationships (1 = Not easy at all, 5 = Extremely Easy)

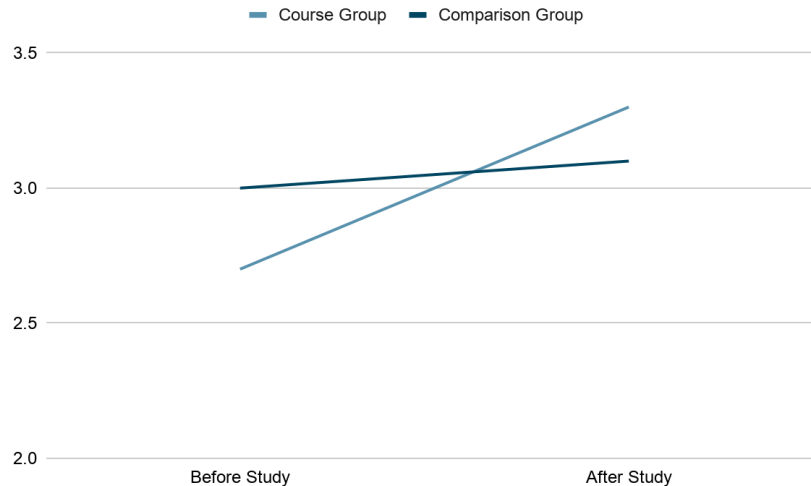


Emotional and Relationship Management

An even lower proportion of the participants were confident in their skills in managing emotions and relationships. Many of the students (66%) reported that they had difficulty managing their emotions and relationships with peers. Similarly, gender- and age-based gaps were found. Compared to female students (25%), male students (42%) seemed more confident, and high school students were more likely (39%) to be confident than middle school students (33%).

Based on the ANCOVA, although both groups made improvement by the end of the study, the students who completed the course were still significantly more confident than the comparison group ($p = 0.029$). Similarly, the course was more effective in encouraging students from LMI schools, who had, on average, 17% improvement in their confidence score, than those from non-LMI schools, who had an average of 8% improvement.

Figure 4. Confidence in Managing Emotions and Relationships (1 = Not easy at all, 5 = Extremely Easy)



The analysis did not find evidence suggesting that *Character Playbook* was effective in increasing students' self-awareness and abilities to understand and identify with others. The implications of the study are discussed in the section below.

Conclusion and Implications

As students navigate middle school and enter high school, their relationships with friends and peer groups grow in importance. Cultivating healthy relationships is a crucial component of a positive and supportive learning environment, which is linked to increased interest in learning, improved academic outcomes, and boosted attendance rates (Mastorci, et al., 2024). In line with what the general literature suggests, this study revealed the dire need for social and emotional education for teenagers. As the data and analysis show, teenagers did not have much knowledge about social and emotional skills and were not very confident in their skills in building healthy relationships and managing emotions. In addition, gender-based gaps were found in several key SEL measurements. For example, while male students were more likely to be confident in their social-emotional skills, they had significantly lower scores in the SEL assessment.

Through a quasi-experimental design and rigorous ANCOVA analysis, the study revealed that students could benefit from taking the *Character Playbook* course in several important ways. First, the analysis showed that the students who took the course performed significantly better in the assessment of SEL concepts and skills. Although knowledge may not have an immediate impact on students' behaviors, it serves an important role as the starting point for exposure to the topic, awareness of issues, and identification of key areas for improvement. Any of these may be a catalyst for real attitudinal shifts and tangible behavioral changes in the future.

The course did more than increase students' knowledge on SEL concepts. Our analysis showed that students who took the course ended up with significantly higher levels of confidence in relationship building and emotional management skills than their peers who did not take the course. This positive effect is crucial because high self-efficacy in SEL skills has strongly positive associations with actual behaviors of more effective emotional regulations and more sustainable and healthier relationship building (Bustamam & Abubakar, 2024). Another critical finding is that students from LMI schools had significantly better learning outcomes than students from non-LMI schools in several critical SEL skills. Given that our data showed no significant differences in the baseline outcomes between LMI and non-LMI school students, the findings of this study have significant practical implications. Understandably, schools with less resources and serving more vulnerable populations may choose to prioritize other programs. Nevertheless, the finding that LMI students benefited more from our SEL program indicated that investing in online social-emotional learning programs has exceptionally good returns for these students. Moreover, our analysis suggested that earlier exposure to SEL learning could lead to additional benefits, as only middle school students had significantly higher confidence in their skills in building healthy relationships after taking the course. Thus, it is reasonable to propose that there exists an optimal window for students to receive SEL education, or at least some exposure to certain SEL topics. Future studies can focus on this area and identify the best times to introduce SEL learnings for different SEL topics.

Beyond knowledge gain and attitudinal changes, our study also provided preliminary evidence showing positive behavioral changes after taking the course. Specifically, students who took the course reported a significantly higher frequency of thinking about potential consequences before making decisions. Responsible decision-making is one of the core social-emotional competencies identified by CASEL. Nevertheless, according to the review by Shulman and colleagues (2016), emotions rather than reasoning often have a stronger influence on teenagers' decision making. Even if our survey-based measurement may not reveal the real-world behaviors of the participants, the course can reinforce the importance of "thinking before acting" mindset and remind the students of thinking about consequences before decisions, which in and of itself is a notable contribution.

There were several limitations to this study that should be noted. First, due to the quasi-experimental nature of the study, we did not have an ideal sample size for the comparison group. As a result, the statistical power of the study is lower, and some small effects of the program, if there were any, might not be revealed by the analysis. Second, to maintain a natural and non-intrusive study environment, the teachers were asked to administer the course the way they saw fit during the study window, and no

researchers were on the study sites to provide instructions or guidance. Therefore, the course might not be used in an optimal way, and students might not achieve the best possible learning outcomes. Third, the participants took the post-study assessments and surveys immediately after the course. Thus, the sustainability of the observed positive effects of the program was not measured.

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