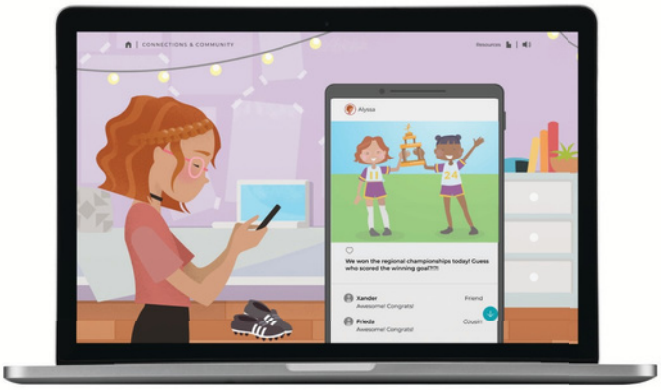
EVERFI®

Impact Research

Igniti on Digital Wellness & Safety

Executi ve Summary

- This research was designed to meet ESSA Tier 3 standards for “Promising” evidence of impact.1
- Students in Middle School are incredibly suscepti ble to cyber-bullying as well as social comparison.2,3
- *Igniti on* was originally created (and re-released in 2019) to equip students with the skills needed to be responsible and safe digital citi zens.
- EVERFI believes impact goes beyond just learning. That is why course design and measurement of impact focused on changes to atti tudes, in additi on to knowledge.
- Students who started and completed the course in October 2021 exhibited a stati sti cally signifi cant positi ve increase in knowledge over ti me.
- *Igniti on* helped prepare female-identi fying students to combat social comparison.
- Overall, students also demonstrated positi ve, but not signifi cant, shift s in atti tudes related to their prosocial digital behaviors, wellness, and safety.



Grade Level: 6 - 9

Total Lessons: 6 lessons, 20-30 minutes each

Curriculum Fit: Health, Library Science, Homeroom Computer Skills, Advisory, and CTE
Available Translati ons: English, Spanish, and French

“I liked that this course was able to show all sides of staying safe online and [how to keep] a good online and offl ine balance.”

-Ignition Student

Authors: Gina Ricker, PhD and Joanne Angosta, MA

Background

Student Digital Wellness Educati on

As students navigate and connect with others in online spaces, they are met with an overwhelming amount of informati on of varying quality and intenti ons, threats to their privacy and security, and endless scrolling that can negati vely impact their wellbeing.4 In parti cular, middle school students are at high risk for bullying and social comparison in the digital space.2,3

Dedicated educati on programs on digital wellness and well-being are a necessary approach, and have been shown, to miti gate the risks students face in digital, and digitally-mediated environments.5, 6, 7

Igniti on, recently rebooted in 2019, is a digital course that tackles some of the most pressing digital issues facing students today, preparing them to be bett er digital citi zens for their lifeti me. *Igniti on* lessons are aligned to ISTE (Internati onal Society for Technology in Educati on) student standards, CASEL (Collaborati ve for Academic, Social, and Emoti onal Learning) competencies, and CCTC (Common Career Technical Core) standards to support eff ecti ve and meaningful instructi on. The course instructs students on the skills they need to safely and confi dently navigate the digital world. Despite 85% of students reporti ng they spend at least 3 hours per day on social media, only 63% acknowledge that technology has a big infl uence on their lives. In *Igniti on*, students are encouraged to take practi cal steps to protect their balance between online and offl ine acti vity, their privacy and safety, while also teaching them how to evaluate content for accuracy, perspecti ve, and moti ve.

Percent of 8th graders who said...

62.53% "technology has a big infl uence on my life"

85.17% they spend 3+ hours a day on social media

"I think our students really need to learn about digital literacy. They were surprised by things like how fast informati on spreads on social media."
- Fall 2021 Ignition Educator

Method

This study aimed to determine the eff ecti veness of EVERFI's *Igniti on* course in increasing students' knowledge about key concepts related to digital citi zenship and in shift ing atti tudes aligned with prosocial and safe online interacti ons.

Data was collected from students who started and completed all 6 lessons of *Igniti on*, in any order, on the EVERFI K-12 Platf orm during October 2021. Secondary analyses were conducted on student data collected from the course surveys and quizzes.

Lesson Topics

Connections & Community

Students learn about the permanence of their online posts and how to manage online relati onships (including instances of cyber-bullying, harassment, or "digital drama")

Safety & Privacy

Students learn what a digital footprint is, how to protect their personal informati on, why to be wary of digital tracking, and how to get help when they need it.

Screen Time vs Offl ine Time

Students learn the benefi ts and risks of online ti me, as well as ways to identi fy if they spend too much ti me online and how to manage their online ti me.

Technology & Data

Students learn how to protect their data online, how to recognize and avoid online threats, and how to create a secure password.

Rights & Literacy

Students learn how to responsibly create or co-create content online, including their rights, responsibiliti es, and restricti ons in creati ng and sharing content.

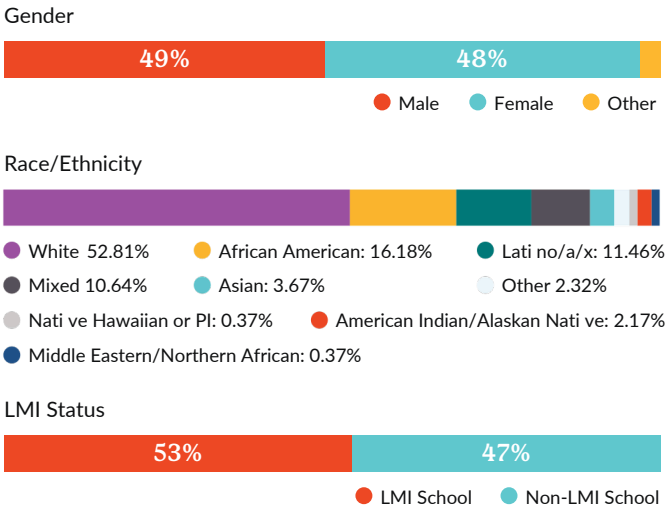
Evaluating Content

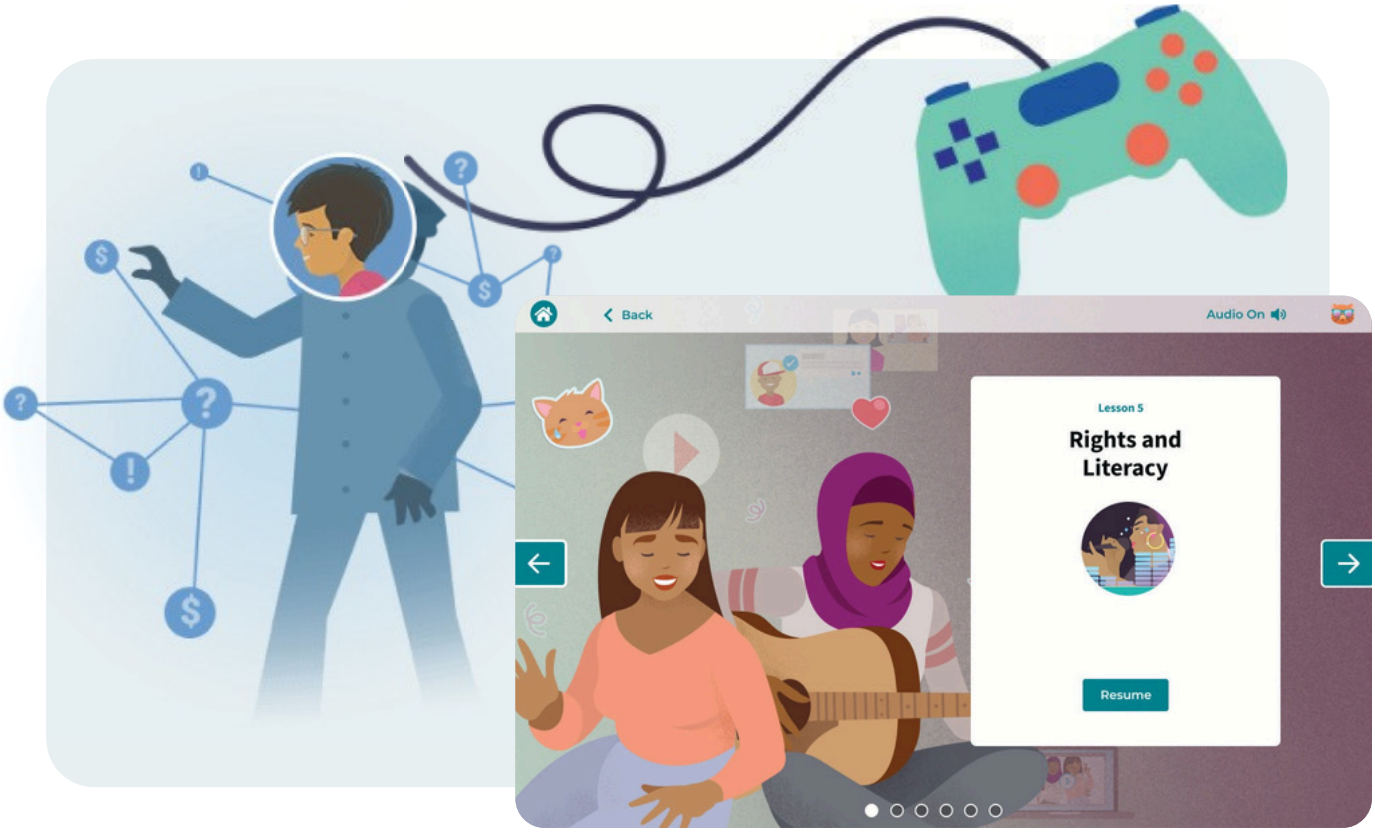
Students learn how to conduct eff ecti ve searches online, how to evaluate content for accuracy and perspecti ve, and how to diff erenti ate news from nati ve ads.

Parti cipants

Survey informati on was collected nati onally from students who self-reported they were 13 years or older at the ti me of course enrollment. Therefore, this study limited data collecti on to students in Grade 8, even though there were other grade levels that took the course in practi ce. Only students who completed all lessons, quizzes, and surveys in October 2021 were included (n = 1,113).

The breakdown of student demographics for the study sample can be found to the right. The sample is very similar to the wider populati on that took *Igniti on* in the 2021-22 school year with slightly less race/ethnicity diversity.





Measurement

Quizzes

To assess the acquisiti on of knowledge, students answered pre-and post-quizzes before and aft er each lesson. Students saw the same questi ons on both the pre- and post-quiz. However, students did not receive the answers or a score on the pre-quiz. In total, 30 multi ple choice questi ons were given to students targeti ng areas covered in the course: data privacy and sharing, screen ti me, respectf ul social engagement, and media literacy.

For example, parti cipants were asked, “When is it okay to share your password with a friend?” with the following answer opti ons: “if your friend promises not to tell anyone”, “if you change your password right away” ,“if it’s your best friend”, “it’s never okay to share your password (correct answer).” All questi ons had four answer choices and one answer that best aligned with the curriculum in the course. The quiz items were determined to have a high internal consistency8. Quiz scores from the fi rst quiz att empts for each student were averaged and used for analysis.

Surveys

Students who reported they were 13 years or older at the ti me their teachers enrolled them in the course were also given opti onal pre- and post-surveys to measure atti tudes. In additi on to atti tudes, the pre-survey collected self-reported student demographic informati on, while the post-survey collected course-related feedback.

Students were asked to rate on a 5-point Likert scale how strongly they agreed, or felt prepared, to engage in prosocial behaviors aligned to digital wellness and safety concepts9. Separate repeated-measures ANCOVAs were conducted for each questi on to surface meaningful informati on at the item level.

Lastly, teachers were asked to answer a survey following the fall semester to provide context around their course implementati on experience and glean product-focused feedback. School-level low-to-moderate income (LMI) status was obtained from the Nati onal Center for Educati on Stati sti cs.

Results

Knowledge

Students took 4 ½ days, on average, to complete the course, meaning they were a completing a little over a lesson a day.

As shown by the bar graph, students demonstrated an increase in knowledge and understanding of concepts related to digital wellness and safety, even after controlling for the effect of gender, race, and school LMI status.10
Students were scoring, on average, 58.8% on the pre-quizzes. After completing *Ignition* lessons, students demonstrated an average increase of nearly 10 points (15.7%), or a letter grade difference.

> "I liked how the course covered a ton of online situations that could legitimately happen to me or anyone I know."
> **- Ignition Student**

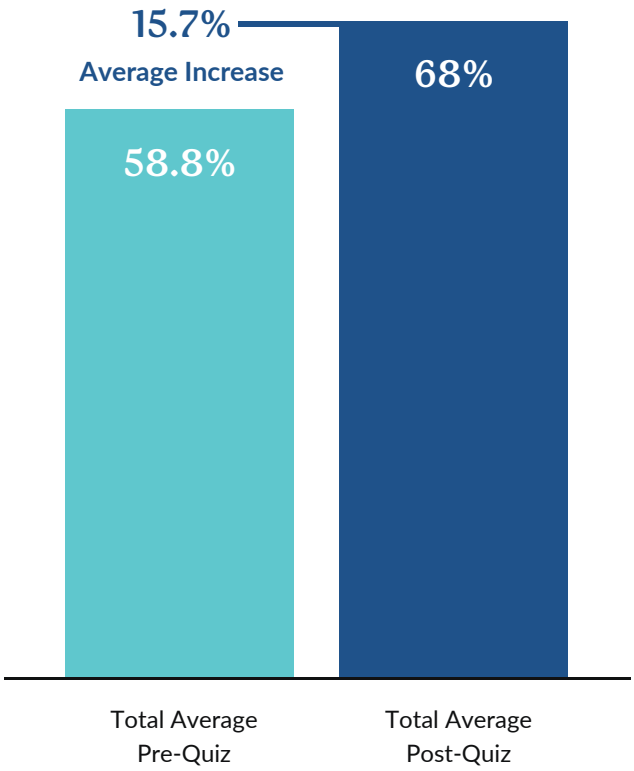
Attitudes

In past research, educators and researchers evaluating digital wellness programs have observed that students can often demonstrate an understanding of safe online behaviors, but they do not always follow through in practice.11 The current study is no exception. While students significantly increased their average preparedness to "Identify the difference between created and curated content" online12, other results showed differences in the same positive direction, but not to the point of significance: "Avoid comparing myself to others"13; "Protect my safety online"14; "I know what to say to diffuse a situation online"15; and "Ask an adult for help dealing with an issue I am facing online".16

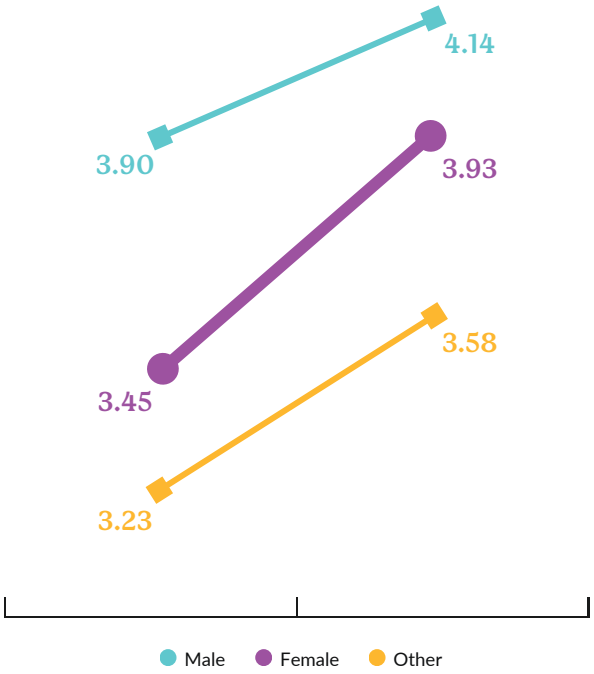
It is important to point out that prior research has found gender differences in technology use and social comparison.17,

[18] The current study corroborates this and found that there were notable differences in preparedness to "avoid comparing myself to others," with female-identifying students, and students identifying as 'other' scoring significantly lower than male-identifying students prior to the course. After *Ignition*, preparedness to avoid social comparison increased for all students, however, most significantly for female-identifying students (a 14% increase) helping to close the marked gap with male-identifying students.19

Knowledge Gain



Pre to Post Change in Preparedness to Avoid Social Comparison by Gender



Conclusions

Aft er taking *Igniti on*, the percent of 8th graders who said...

71% **Agree or Strongly Agree**
Igniti on helped them protect their mental well-being online.

69% **Agree or Strongly Agree**
Igniti on made them more aware of how their data and informati on can be used by others online.

66% **Agree or Strongly Agree**
That spending ti me offl ine is just as important as spending ti me online.

Discussion

This study highlighted promising evidence that *Igniti on* is having a positi ve impact on student knowledge and, to a lesser extent, atti tudes. In an increasingly digital world, educati on on how to both benefi t from a digital community and navigate the inherent pitf alls of digital spaces is incredibly important. During adolescence, students are shift ing away from adults to peers as their main source of social informati on.20 Therefore changing strong beliefs in students through direct educati on, especially on a topic in which they feel skilled, is parti cularly diffi cult.6 Given this challenge, the fi ndings from this study are not surprising as students reported directi onally positi ve, but generally not stati sti cally signifi cant, shift s in atti tudes related to making healthy decisions online, as well as feeling more prepared to protect their safety and wellbeing. Educators who used *Igniti on* in the Fall of 2021 reported overwhelmingly positi ve experiences using the course with students. However, given the brief nature of the learning experience, more context around implementati on fi delity and if the supplemental materials EVERFI provides to extend learning were used is needed. Ulti mately, *Igniti on* was found to equip students with the informati on needed to safely explore the digital world. This is only half of the batt le with a digital nati ve generati on; it is criti cal to conti nue encouraging students to use this knowledge in their daily lives.

EVERFI®

Igniti on can help schools receiving discounts off ered by the E-rate Program meet the Children's Internet Protecti on Act (CIPA) requirement.

"*[Igniti on]* tackles challenging topics in a kid friendly way using scenarios they can relate to."
-Ignition Teacher

Percent of *Igniti on* Educators who said ...

92% the course was interesti ng for their students.

97% the course fi t easily into their curriculum.

89% they used either the grades or parti cipati on in *Igniti on* towards their students' classroom grades.

94% they plan on using EVERFI again next year.

EVERFI, Inc., a Blackbaud company, empowers educators to bring real-world learning into the classroom and equip students with the skills they need for success - now and in the future. 3 of 5 U.S. school districts use EVERFI's digital resources to teach topics like financial literacy, social-emoti onal learning, career readiness, and preventi on educati on.

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Ready to start using *Igniti on*?
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8. Given a non-standardized measurement of knowledge was used, the reliability of the quiz items were collectively assessed and determined to have high level of internal consistency ($\alpha = .79$).
9. An exploratory factor analysis (EFA) was run on a 16-item survey ($\alpha = .95$) that measured attitudes and intended behaviors related to digital wellness and safety. KMO = .97, which is 'marvelous' according to Kaiser. Bartlett's test of sphericity was statistically significant ($p < .001$), indicating that the data was likely factorizable. EFA revealed one factor that had an eigenvalue greater than one and which explained 95.81% of the total variance. Visual inspection of the scree plot indicated that one factor should be retained. The measure was deemed likely unidimensional.
10. A one-way repeated measures ANCOVA was conducted to determine whether there were statistically significant differences in quiz scores before and after the students were exposed to *Ignition* content. There were some, but no extreme outliers, and the data were initially not normally distributed, as assessed by boxplot, Shapiro-Wilk test ($p > .05$) and Q-Q Plot, respectively. Therefore, a reflect and logarithmic transformation was applied to remediate the moderate negative skew. The assumption of normality was then met. After controlling for gender and race/ethnicity, and designating school low-to-moderate income status as a between-subjects factor, the course elicited statistically significant changes in knowledge over time, $F(1,1108) = 84.31$, $p < .001$, $\eta_p^2 = .07$.
11. Hui, B., & Campbell, R. (2018). Discrepancy between learning and practicing digital citizenship. Journal of Academic Ethics, 16(2), 117-131.
12. One-way repeated measures ANCOVA analyses examined whether there were significant differences in attitude item scores before and after students were exposed to *Ignition* content. All items were normally distributed. All analyses controlled for gender and race/ethnicity, and included designated school low-to-moderate income status as a between-subjects factor. Students significantly increased their mean preparedness to "Identify the difference between created and curated content" (Pre-Survey = 3.42; Post-Survey = 3.91; $F(1,1108) = 11.33$, $p < .001$, $\eta_p^2 = 0.01$).
13. Pre-Survey = 3.65; Post-Survey = 3.98; $F(1,1108) = 0.55$; $p = .46$; $\eta_p^2 = 0.00$
14. Pre-Survey = 4.19; Post-Survey = 4.22; $F(1,1108) = 0.06$; $p = .80$; $\eta_p^2 = 0.00$
15. Pre-Survey = 3.69; Post-Survey = 3.89; $F(1,1108) = 1.02$; $p = .31$; $\eta_p^2 = 0.00$
16. Pre-Survey = 3.62; Post-Survey = 3.91; $F(1,1108) = 2.28$; $p = .10$; $\eta_p^2 = 0.00$
17. Bergagna, E., & Tartaglia, S. (2018). Self-esteem, social comparison, and Facebook use. Europe's Journal of Psychology, *14*(4), 831.
18. Nesi, J., & Prinstein, M. J. (2015). Using social media for social comparison and feedback-seeking: Gender and popularity moderate associations with depressive symptoms. Journal of Abnormal Child Psychology, 43(8), 1427-1438.
19. There was a significant interaction between time and gender, $F(1, 1105) = 4.96$, $p = .01$. Bonferroni-adjusted comparisons indicated that, before taking *Ignition*, students who male-identified reported preparedness scores .44 points higher than females ($p < .001$, 95% CI of the difference .26 to .63) and .66 points higher than those who identified as other ($p = .01$, 95% CI of the difference .12 to 1.20). Preparedness scores increased for students who identified as male (from 3.90 to 4.14; $\chi2(1) = 1.09$, $p = 0.30$) and those who identified as other (from 3.23 to 3.58; $\chi2(1) = 2.59$, $p = 0.11$), though slope contrasts indicated this change over time was not significant. However, there was significant change over time among female students, with scores increasing from 3.45 before *Ignition* to 3.93 after taking *Ignition* ($\chi2(1) = 299.76$, $p < .001$), a 14% increase.
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