

Getting Smart Research Report

# How Minecraft Supports Social and Emotional Learning in K-12 Education

June 2017

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## < Introduction >

In an era when technologies are bringing about exponential change everywhere, a reliance upon traditional measures of academic excellence alone isn't a failsafe strategy for the future of K–12 education. Increasingly, more schools and districts across the globe are embracing social and emotional learning (SEL), an approach that builds skills and competencies that will help students be successful in school, work, and life.

While not a traditional focus in education, SEL brings with it a clear sense of urgency. When the students of today become the professionals of tomorrow, the work world will have transformed beyond what is comprehensible now. *Preparing students for jobs that don't yet exist* involves teaching them a set of skills

that will enable them to successfully adapt to an ever-changing environment while retaining the ability to build relationships and positive interactions with others. It's a complicated task, and one that has benefited from the use of specific technologies.

In this report, we'll dive further into the ways educators are supporting students' SEL growth by incorporating gaming into their lessons via *Minecraft: Education Edition*. Through interviews, a global survey and several case studies, we'll provide an inside view of what is currently happening on this front in K–12 education, as well as insights for those who may be interested in supporting a SEL program within their school.

### **Minecraft History**

Minecraft is a video game developed by Markus Persson and initially published by Mojang in 2011. The game allows players to construct out of textured cubes a three dimensional world. Activities include exploration, resource gathering, and creating. Individual and multi-player modes are available. Microsoft acquired Minecraft in 2014. Over 121 million copies of the game have been sold making it second only to Tetris in best selling games.<sup>1</sup>

## < Research Overview >

The purpose of this report was to investigate the potential connections between classroom use of *Minecraft* and the social and emotional outcomes of K–12 students.

As we explored the topic, many questions arose. Can a game actually spur personal growth? Do interactions in virtual worlds impact students' ability to empathize in real-world scenarios? What transferable skills could *Minecraft* provide that will help them achieve academic success, while better preparing them for college and careers? What can teachers do to better support SEL outcomes?

*Minecraft's* popularity outside the classroom was already apparent; we wanted to know how it was received when incorporated into lessons and graded assignments. Obtaining insights from all of the key stakeholders involved—teachers, students, parents, and educational experts—was critical in order to gain a holistic perspective.

### **Minecraft: Education Edition**

*Minecraft: Education Edition* is an open-world game that promotes creativity, collaboration, and problem-solving in an immersive environment where the only limit is your imagination.<sup>2</sup>

For the purposes of this report, the Getting Smart team gathered data from relevant sources using a variety of communication vehicles, including:

- + A global online teacher survey
- + Several onsite observation and evaluation sessions of educators using *Minecraft: Education Edition* in classrooms
- + Existing SEL literature reviews
- + Phone interviews with experts in K–12 education
- + Informal data gathering via several popular social media channels such as Twitter, Facebook and LinkedIn

Our team met with teachers, school leaders and students at [Bryant Montessori, International School](#) and [Renton Prep Christian Academy](#) in the state of Washington. Testimonials and other contributions contained herein reflect the viewpoints and experiences of dozens of educators from 11 countries across four continents who responded to the online survey.

Additionally, the team conducted a thorough literature review of leading SEL research and publications in order to further inform the content of this report.

# < Social and Emotional Learning Overview >

## What Is Social and Emotional Learning, and Why Is it Important?

In the context of K–12 education, SEL is the process through which students 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.<sup>3</sup>

While much of SEL's focus is future-facing, the study and exploration of SEL is not a recent endeavor. There is over a decade of supporting evidence for SEL outcomes from Carol Dweck and Angela Lee Duckworth, emphasizing the **importance of mindset**. However, this momentum shift has been very evident and there is now an urgency to support SEL outcomes in every pocket of education systems. Since 1994, the Collaborative for Academic, Social, and Emotional Learning (CASEL) has aimed to make high-quality, evidence-based SEL an integral part of preschool through high school education. Its **Collaborating Districts Initiative** (CDI)—a massive school district improvement effort impacting over 900,000 students in 10 urban districts across the United States—has helped to redefine academic success outside of test scores alone over the past six years. This in-depth

study of a system-level attempt at scaling high-quality, evidence-based academic, social and emotional learning has demonstrated that SEL initiatives thrive when woven into subjects across the curriculum throughout the traditional school day.

Research findings from the CDI underscore the point that SEL is a collaborative, community-driven effort with multiple stakeholders. According to the study, “students thrive when it is promoted and reinforced throughout the school day, modeled and taught by teachers, families and community members, and supported by district policies, practices and investments.”

Experts believe it to be a critical missing link in what has traditionally been considered an otherwise well-rounded public education.

## Advantages of Social and Emotional Learning in the Classroom

SEL underscores student success in a variety of ways. Research has shown that students exposed to SEL are better equipped to manage themselves and exhibit agency over their own academic experience, **have a greater understanding of the perspectives of others and a better ability to relate effectively to them**, and are able to make sound choices about personal and social decisions.

The short-term benefits of incorporating SEL include:

- + Increasingly positive attitudes toward self, others and tasks including enhanced self-efficacy, confidence, persistence, empathy, connection and commitment to school, and a sense of purpose
- + More positive social behaviors and relationships with both peers and adults
- + A reduction in conduct problems and risk-taking behavior
- + Decreased emotional distress
- + Better test scores, grades and attendance<sup>4</sup>

Results in the long-term are even more encouraging, as students for whom SEL is emphasized are more likely to graduate high school, better prepared to pursue college degrees and poised to become engaged citizens. They are less likely to commit crimes or suffer from mental health or relationship issues.<sup>5</sup>

Developing **strategies and guidelines for SEL** that are developmentally appropriate as well as linguistically and culturally sensitive, while also incorporating positive learning environments and professional development, is an undertaking best led at the district and school level.

According to the **American Institutes for Research** and CASEL, key features of high-quality policies and guidelines for SEL are:

1. Clearly stated, freestanding learning goals with age-appropriate benchmarks to articulate goals for student SEL from preschool through high school

2. Integration and alignment with academic content standards
3. Incorporation of guidelines about teacher practices that support social and emotional development
4. Inclusion of guidelines on how to foster a positive learning environment
5. Cultural and linguistic relevance
6. Links to strategies and tools to enhance implementation

Without clear, robust learning goals, however, an SEL program will likely not reach its fullest potential. Comprehensive SEL goals include developmental benchmarks across five key social and emotional competency domains, encompassing self-awareness, self-management, social awareness, relationship skills and responsible decision-making skills.

Teachers play a significant role in the support of skill acquisition, both within SEL-specific programming and in general coursework. The organizations have recommended that states and districts not only provide resources and guidance on the subject for educators, but also seek to offer methods for administrators to support teachers in adopting new teaching practices or modifying existing approaches.

The American Institutes for Research have also created a **suite of assessment tools** to help school leaders and educators determine how to evaluate social and emotional learning in their own academic environments.



Photo.courtesy of Renton Prep Christian School

## How Does Gaming Boost SEL in K-12 Education?

We spoke with several educators and experts in K-12 education to learn how gaming—a technology that can often seem more isolating than interactive—could actually boost social and emotional outcomes for students as young as those in kindergarten. Their observations make a powerful argument for the ways in which gaming—and, more specifically, *Minecraft*—creates opportunities for transformational learning experiences.

### Dr. Michelle Zimmerman, Renton Prep Christian School

Dr. Michelle Zimmerman is Executive Director of [Renton Prep Christian School](#), a Microsoft Showcase School in Seattle, Washington. Zimmerman earned a PhD in Learning Sciences and Human Development from the University of Washington's College of Education, and has conducted extensive research in the area of gaming.

Zimmerman writes: “When educators intentionally work on the classroom culture using a game like *Minecraft* as a vehicle for that learning—when students are already intrinsically motivated to play—it can serve as a powerful learning tool. Studies point to learning as a cultural process, including complex aspects of development representing a larger human experience regardless of age, gender, class status, racial or ethnic group membership.<sup>6</sup> *Minecraft* has global impact. It can be entirely non-verbal, and yet, it provides opportunities for rich verbal dialogue, story prompts, history, contextual understanding, science, fine arts and even world languages.”

In a 1:1 device environment, gaming can still be a very collaborative and interactive experience.

“In *Minecraft*, where students have the ability to experience a sense of autonomy, competence and relatedness, there’s an opportunity for also experiencing contrasting and parallel viewpoints, reactions and approaches. Although some teachers are concerned about **griefing**, or survival mode,



**“Minecraft has global impact.”**



students can learn from those scenarios, especially when guided by an adult to help support SEL.”

Cultivating empathy through gaming isn’t a given; rather, it occurs as part of a guided experience.

“As educators, we have the opportunity to help students develop empathy through gaming and imagine how they’d like to be treated, talk through scenarios in gaming and in their personal lives, and discuss how they would do something differently (or have wanted to be treated differently), then practice those skills.”

Technology doesn’t impede our ability to build relationships; conversely, with regard to gaming in the classroom, it can serve to further bolster them.

“We know that human connection can be powerful in many settings and environments. Gaming is no exception. Relatedness speaks to a social and emotional impact that occurs through relationships with others. Games that allow a collaborative or cooperative mode provide the opportunity for an increased sense of belonging through relatedness inside of a game environment. When learning design is built into a classroom setting with games that already intrinsically motivate students, that relatedness can extend and transfer outside of the game as students discuss and interact with each other in person as well as in the game environment.”

## Rody Boonchouy, Buck Institute for Education

Rody Boonchouy is Senior Director of Innovation and Strategic Partnerships at the [Buck Institute for Education](#). An expert on Project-Based Learning (PBL), he recognizes that the principles and underlying values of PBL and game-based learning are very similar.

Both offer a way to engage learners of all ages in working toward clear and relevant objectives, weaving in conquerable obstacles and formative feedback in the process. Games, in fact, are often used as a supplement to PBL experiences, providing a digital and visual vehicle for reflection on learning.

Boonchouy sees an obvious intersection between SEL and the use of video games—specifically, *Minecraft*—in the classroom.

“It isn’t a secret that games are popular and engage students. They’re able to fail forward in a risk-free environment. When playing *Minecraft*, students must have a level of coordination and cooperation in order to accomplish shared objectives. They’re negotiating with one another, strategizing about resources and next moves, and delegating responsibilities. It’s really quite remarkable to see.”

While Boonchouy works with the K–12 set, he also has a unique window into the world of *Minecraft* and its educational benefits: his children, ages nine and six.

“As a parent, I had trouble finding games that weren’t gender-specific. *Minecraft* appeals to boys, girls, teens—it’s a whole phenomenon, and the flexibility of it allows students to become creators, designers, planners and, yes, at times, even failures, all within the context of a virtual world they’ve built themselves.”

One of the most exciting aspects of *Minecraft*? Boonchouy believes it bolsters students’ notion of teamwork.

“It emerges organically: students tap into or develop this ability to collaborate and cooperate in an unleashed and unbounded way. They don’t step out of line, and moreover, they’re actively seeking ways to contribute to a broader purpose as part of a team.”



**“When you have agency and ownership over your environment and your contributions, that’s an engaging space to be in—and definitely opens students up to learning.”**



Those qualities are relevant outside of the virtual world, of course. “I can see the connection between the collective tasks in *Minecraft* and the use of interpersonal skills in the real world,” Boonchouy said.

He also sees evidence of empathy-building elements in *Minecraft* when the game is played in what is called *story mode* (think Joseph Campbell’s *The Hero’s Journey*).

“This is where the player assumes a particular character, similar to the *Choose Your Own Adventure* books. As you move through the game, your character encounters other characters in various situations. In each instance, you are actively making a choice about how you interact with this other entity. Will your interaction be transactional, confrontational or avoidant? Depending upon your actions, you’ll be dealing with a different reaction. I see a strong tie to empathy, in that students are learning how their decisions and the way they interact with others can affect responses. There’s a direct cause-and-effect relationship to any interaction: if you continue making poor choices that aren’t mutually beneficial, it won’t lead to your own desired outcomes, or you could hurt others’ feelings.”

One of PBL’s essential elements—the notion of ownership—arises in *Minecraft* as well.

“How do these global communities, created and driven by students, evolve in such a productive and civil way? It’s simple: they feel like they own this world. They built it, they develop it and they evolve it. That sense of ownership that’s not arbitrated by adults or by

the adult world encourages deep buy-in. We call this ‘voice and choice’: they’re actively engaged and they’ll lean on their assets and how they can contribute to the learning experience. When you have agency and ownership over your environment and your contributions, that’s an engaging space to be in—and definitely opens students up to learning.”

### **Jeff Gearhart, Brinnon School District**

Jeff Gearhart has seen firsthand in his classroom how engaging the use of *Minecraft* can be for students. A technology instructor in a small, high-poverty school district, Gearhart acknowledges that his students—part of a total school population of 60—are in an unusual situation in American K–12 education.

They live in an area on Washington State’s Olympic Peninsula that’s ridden with high unemployment, due to shifts away from industries like forestry and construction. Nearly all students qualify to receive free or reduced lunch, and **Brinnon School District** relies solely upon external funding through grants and donations for its technology resources and training.

“I’ve always played *Minecraft* on my console. When *Minecraft: Education Edition* was launched, I thought that it was pretty cool that they were moving gaming like this into schools—but I wasn’t quite sure how it’d work.”

He did research and investigated on his own, asking questions and reaching out to people. He applied to and was selected to become part of the **Microsoft Innovative Educator Program**,

which changed the way he was able to accomplish things—enabling him to network with other educators across the world, see what others are doing in their classrooms and, ultimately, transform his own role. (He was recently invited to present to the House Education Committee and the Technology and Economic Development Committee regarding state funding for Microsoft's *Minecraft* in Education program.)

"It means I'm doing as much as I can to bring new tech and innovate in the classroom, and *Minecraft* is one of those vehicles," Gearhart said.

The game's popularity outside the classroom has helped. "When I asked, 'How many of you have played *Minecraft*?', all of their hands went up," he said.

He explained to the students how the educational version was different, and they thought it was cool. "The engagement and involvement of the students was huge, because they don't all get along in real life," Gearhart explained. "Focusing on a task isn't a given, and they can often get distracted by one another. In *Minecraft*, they're able to focus on the same goal."

In his three daily classes, Gearhart instructs mixed-level groups of kindergarteners and first and second graders; third, fourth and fifth graders; and sixth, seventh and eighth graders. In his lessons, he grapples with significant developmental differences, in addition to the fact that each student has a unique learning style and challenges.

**"Minecraft is a learning platform with transferable skills."**

Gearhart cited the game's versatility as a means of encouraging collaboration regardless of grade level.

Other teachers, along with the school superintendent, observed how focused the students were when visiting Gearhart's classroom. "They're collaborating quietly, learning teamwork and other valuable skills (mathematics and geography/navigation) that they will be able to use 20 years from now," he said. "*Minecraft* is a learning platform with transferable skills."

Gearhart has witnessed a change in his students, a level of emotional maturity that has spurred academic growth and a sense of agency among students who, at the beginning of the year, would have asked questions. Now they take initiative and forge ahead, even designing their own lessons within *Minecraft* and associated assessment measures.

"There are going to be jobs available to these students that are not created now—and that's huge," Gearhart said. "We're helping to prepare them for that."

## < Research Findings >

To learn more about how teachers embrace *Minecraft* as a learning tool, we disseminated a survey asking K–12 educators of all disciplines for feedback on whether in-class gaming impacted their students' SEL

skills, and which skills it might best support. Responses came in from a diverse group of educators representing 11 countries across four continents. Here's what they had to say:

Nearly all teachers surveyed (**97.7%**) cited "**problem solving**" as **the top SEL skill** that their students learn from classroom *Minecraft* lessons and extracurricular participation in the game. Other top skills cultivated include **creativity (95.5%), critical thinking (93.3%)** and **collaboration (91.1%)**.

The majority of teachers also felt that their students' **decision-making (88.8%)** and **communication (86.6%) abilities** were positively impacted by the time they spent playing *Minecraft*, whether working in small groups or individually.

Just over half (**51.1%**) believe that *Minecraft* also enables students to build **empathy skills**. (This could be due to interactions with classmates, as well as with characters within the game.)

Most K–12 teacher respondents were very familiar with *Minecraft*, and had incorporated it into their teaching for a minimum of two years. In terms of frequency, the number of teachers who use *Minecraft* in their lessons multiple

times per week is double the number of those who use it only once per week, and the game plays an integral role in the teaching of roughly one out of every 10 educators surveyed, who use it daily in their lessons.

## What Teachers Say

The following are snapshots of teacher opinions shared in our survey results:



## School Case Studies

School Name:

**International School  
Bellevue School District**

Grades:

**6-12**

Student population:

**578**

Location:

**Bellevue, Washington**

In teacher Cheryl McClure's seventh-grade earth-science class, you might encounter a group of students who are laser-focused on a serious global issue: natural disasters. Thinking about earthquakes, tsunamis or volcanoes may not seem especially pleasant to the average adult, but studying this kind of material can make science come alive for middle schoolers at a time when it might be easier for them to tune out such subjects.

The fact that these students are both challenging and supporting one another while working together in Minecraft might be surprising.

This type of project-based learning is collaborative at its core, so there's an exciting opportunity created for educators and learners when it can be accomplished with a game that is familiar and accessible. Developing discipline-specific material that also supports a student's personal growth sounds almost too good to be true. Encouraging collaboration in a 1:1 device environment could appear even less realistic.

What factors create an environment conducive to this kind of educational experience?



Photo(s) courtesy of International School

### **An Emphasis on Social and Emotional Learning**

At the *International School in Bellevue*, SEL is emphasized through a school-wide “Character Strong” initiative, in which lessons about characteristics such as kindness, respect and humility are integrated into courses throughout the curriculum across all seven grade levels. Such holistic approaches to educating “the whole self” can be bolstered with the right tools.

McClure has chosen to incorporate Minecraft into her teaching to support academic content knowledge, and to showcase her students’ understanding of specific concepts.

The result? McClure is confident that Minecraft supports her students’ communication, critical thinking and collaboration skills. “It feels like they’re utilizing critical thinking skills any time that they’re building. There’s a lot of work you don’t see that they’re doing within the program.”

### **Working Together Toward a Shared Goal**

Building illustrative 3D models in a virtual world enables her student teams of research scientists, engineers, media specialists and project managers to connect and collaborate on a meaningful project—the creation of a Public Service Announcement about natural disasters—with a sense of autonomy and personal accountability.

Students are graded within their individual roles, but McClure’s rubric also allows for feedback from the entire class. As they work alongside one another to build, communicating about challenges and sharing new ideas, it’s clear that these seventh graders can work together to successfully reach a common goal.



Photo(s) courtesy of International School

School Name:

**Bryant Montessori**

Grades:

**Pre-Kindergarten-8**

Website:

**Tacomaschools.org/bryant**

Location:

**Tacoma, Washington**

K-12 extracurricular clubs are outlets for students' creativity and experimentation. Often, students across grade levels are able to participate in an area of interest, with guidance from a teacher or industry expert.

In an environment where adults typically run the show, one school has a club with a flipped leadership model. Aligned with Montessori learning, which highlights strength of student autonomy in learning pursuits, this Minecraft Education club stays true to form by placing the leadership in the hands of a group of very capable students.

At Bryant Montessori, three eighth graders led and facilitated a Minecraft Education club over the course of the 2015-16 academic year. A staff supervisor served as a guide, but the students were in the driver's seat.

In the club, a group of third through sixth graders participated in all kinds of challenges that were proposed by their peer leaders at the beginning of each club meeting.

On some occasions, the student leaders would share or show what club members had created in the virtual world, using a smartboard; in other meetings, the students would collaborate on building something as a group.



Photo(s) courtesy of Bryant Montessori

### **Camaraderie Outside the Classroom**

The club offered flexible learning experiences in which students—a mix of boys and girls of different ages—worked alongside each other in the school’s library. Bringing the virtual world to a large screen made for lively debate, and opportunities to help one another in constructing homes and elaborate farms full of livestock—including one that featured “a lot of goats,” as one group laughingly put it.

The club created a level playing field in terms of technology use, as one student described. “I don’t have Xbox Live at home [with the ability to play online], so I could only play with friends who came over to my house. At school, I was able to build with my friends while we were all together.”

Whether digging into caves or building 3D replicas of their own homes and backyards, students acknowledged that they were learning principles of design and mathematics—and the club had made it fun.

Students revealed that their staff supervisor was also learning how to play the game—she had never played Minecraft previously—and they were able to teach her different aspects of it.

### **Embracing Failure as a Learning Experience**

Mistakes in the real world can lead to some very tangible repercussions. As a result, failure often appears to be a scary prospect that is best avoided. The students in Bryant Montessori’s Minecraft Education club, however, have embraced it wholeheartedly.

In Minecraft, starting over represents a new opportunity rather than a regrettable ordeal. In such cases, students in the Minecraft Education club either exploded existing structures in order to create a clean slate for building, or opted to fix their creations. Still more decided to make continuous incremental changes, tweaking their environment over time.

Discussing failure is also far from taboo. “I accidentally opened up water and it filled up my house, so I built a wall that stopped the water,” one club member explained.

Remaining calm and focusing on solving a problem is a skill that will undoubtedly serve these students well throughout their academic and professional careers.

School Name:

**Renton Prep Christian School**

Grades:

**K-5 (Elementary)**  
**6-8 (Middle School)**  
**9-10 (High School)**

Website:

**Rentonprep.org**

Location:

**Renton, Washington**

Students in an all-school dance practice perform alongside a large video simulation of a cathedral as it is being constructed. In an era in which STEM education is emphasized—and often intersects with the arts—this scene may not seem unusual.

At Renton Prep, it's just one of many learning experiences in which Minecraft helps students take center stage.

The Microsoft Showcase school, which educates students from Kindergarten through tenth grade, incorporates the game into teaching for a variety of grade levels and subjects. In a math class, fifth graders build a museum in a lesson on surface area and volume. The students plan projects, assigning roles, negotiating and problem solving both face-to-face and virtually through their Minecraft personas.

In another room, high schoolers are teaching third graders how the human heart works by showing their own Minecraft project.

### **A Culture of Collaboration and Student Agency**

Without prompts from teachers, students provide feedback and overcome challenges as teams. They interact freely during lessons, answering questions and sharing out loud when they are struggling with a concept. They show support outwardly by applauding one another's efforts.



Photo(s) courtesy of Renton Prep Christian School

Their freedom of choice regarding when to use Minecraft, as high school teacher Jessica Pilsner explained, highlights Renton Prep's unique learning environment, where emotional development and student agency are both widely supported and encouraged.

"Minecraft has created a common ground for our students," Pilsner said. "No matter their background, communication style, etc., they are able to find ways to communicate in Minecraft."

Students gain project-management skills while learning to better communicate and overcome obstacles. "They're able to learn and show what they know in multiple formats," Pilsner said. "Having them create a portfolio where they screenshot pieces of their project and write about what they learned has been a great way to showcase learning."

### **Eliciting Powerful SEL Outcomes Across Grade Levels**

Pilsner was excited about the prospect of using the game as a vehicle for social-emotional learning. What surprised her, however, was how it improved her relationship with all of her students—even though she didn't consider herself to be a Minecraft expert. (She advises other educators that there's no need to have such an expectation.)

With most students playing Minecraft outside of school, their level of familiarity actually made it easier for Pilsner to stay focused on outcomes and how her students would showcase what they had learned.

Meanwhile, students' fluency in the game enabled them to think critically about tasks and accomplishing shared goals within it. Since Minecraft appeals to teens as well as younger students, it has equipped Renton Prep's high schoolers with stronger communication, empathy and problem-solving skills in mentoring younger students.

When asked what they love about the game, students' responses ranged from "showing my culture," "making mistakes and being able to fix them" and "expressing my creativity."

After all, as one fifth grader aptly noted, "this is way better than sitting around looking at a math textbook."



Photo(s) courtesy of Renton Prep Christian School

## < Conclusion >

As a versatile teaching tool that underscores the principles of SEL, *Minecraft* has been enthusiastically embraced by educators in all grade levels across K–12 education. Regardless of the subject matter being taught, the game provides an opportunity for students to hone skills such as problem solving, critical thinking, communication, collaboration, negotiation, delegation and even empathy. Accordingly, teachers serve as guides, coaches and facilitators, encouraging independence and student agency.

The game's broad appeal outside of an academic context has enabled an easy in-class adoption with students, whose autonomous motivation to play and teach their peers has been cited by numerous educators.

When it comes to connecting SEL outcomes for students with technology like *Minecraft*, teachers are the bridge. It was very apparent through research and classroom observation that the most beneficial instances of *Minecraft* being used to support SEL outcomes occur

when teachers are intentional about how and why they use the game. We witnessed teachers setting clear outcomes for *Minecraft* use and prompting reflection after lessons that encouraged their students to consider their own SEL outcomes. In addition to describing course-specific learning outcomes, teachers should have a transparent discussion with students about intended SEL outcomes from using *Minecraft*. As Michelle Zimmerman stated, "When educators intentionally work on the classroom culture using a game like *Minecraft* as a vehicle for that learning...it can serve as a powerful learning tool."

*Minecraft* transcends the traditional curriculum, presenting exciting possibilities for social and emotional development in real time. As more teachers and school leaders explore and share creative ways to incorporate the game in classrooms, extracurricular clubs and multidisciplinary learning experiences, K–12 students all over the world stand to benefit exponentially.

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## < Endnotes >

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