FEATURE

ENGAGING STUDENTS IN THE LIBRARY

THROUGH TABLETOP GAMING

Vivian Alvarez
inboxvivian@gmail.com

Take one step forward, and then two moves back. Our media center in a public library operates as a drop-in out-of-school learning environment, and we work closely with middle and high schools in the community that do not have school libraries, providing resources that they lack, ranging from research materials to diverse workshops that focus on student agency. Even as we stand surrounded by advanced technology available to children and teens for their innovative endeavors, young people engaging in analog experiences that bolster agency remains important—maybe more important than ever before as we foster a generation of students who *must* be lifelong learners as technology—and its impact on their careers—rapidly evolves throughout their lives. Besides being a social experience, tabletop games can serve as intrinsic educational tools that tap into students' needs and interests, inspiring them to find motivation in applying new knowledge to their academic work. Why? Because, as with school, every game has a very specific set of rules by which participants must abide. Experiences with analog games are reflective of players' abilities, and how they apply their knowledge directly influences their chances of winning.

The goal is for students to adapt these learned skills and dispositions, and then apply them to their education, extracurricular programs, and social lives.

Another important highlight is that not all tabletop games are created equal. Many traditional games, such as Monopoly, rely mostly on a luck mechanism. Newer games, such as Agricola and Dominion, rely more on player agency, have become more prevalent, and are more representative of modern tabletop games. The type of games that are introduced to students at the library include the latter, described later in this article. Not only have modern tabletop games proven more engaging than many of the older games, but they also have proven to leave fewer feelings of resentment or discouragement if gaming outcomes are not favorable. In fact, students leave the table strategizing better outcomes and looking forward to the next challenge. When this level of self-driven interest is sparked, one must rightfully ask: What are we doing right?

Too often I witness students conquer difficult video-game levels or cooperative games with repetitive trial and error, rather than critically thinking in the situation to complete the mission. Sometimes students consider analog learning experiences to be relics of the past because young people today are accustomed to simplified directives that strip the scenario to the point that designers could simply reskin a game and the mechanics would not change. An excellent example of this would be in comparing a game like Candy Crush Saga to Frozen Freefall (see figure 1). Despite the thematic differences, are the games truly different?

In contrast to players' experiences during analog games, when engaged in many video games, players appear to be more focused on instant gratification, foregoing even a brief perusal of the game instructions. Trial and error with minimal opportunities for skill improvement have become the latest trends in the video-game industry, relying on players' undivided absorption with easy access to online games on computers and mobile devices. In fact, it is not uncommon to see students who, instead of spending quality time together, sit side by side engrossed by online games; these young people are physically present but interpersonally disengaged. For example, students may be in the school library to work on a project as a team but half of them are engrossed in online or digital games, mentally checking into the project only intermittently.

To increase opportunities for interpersonal interaction, collaboration, and quality time among peers, tabletop gaming was chosen in our library to motivate students in a positive manner. Through this approach, students would be encouraged to be at full attention to maximize the game outcomes through their individual agencies.

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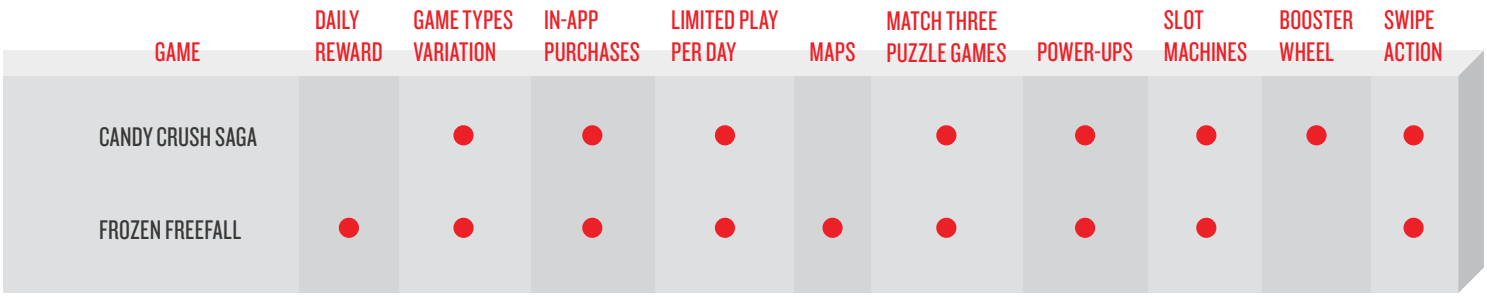

Figure 1. Comparison of two popular video games that vary little in essentials.

For the purposes of this article, student agency is defined as the initiative and capacity for students "to construct possibilities for themselves," drawing "projections of who they are and believe they will become" as they act in a desired direction or toward a desired goal (Toshalis and Nakkula 2012, 29). Modern tabletop games typically require:

- two through six players
- no information hidden from any team member
- a semblance of story-building
- description cards
- an average-to-minimal reliance on a luck mechanism such as rolling dice

Tabletop games have a system of rules that ensure that every participant is on a level playing field, with none given a distinct advantage over another. Through tabletop gaming, students learn that they can test different strategies with little to no fear of embarrassment if the first attempt is not victorious. Tabletop gaming is valuable play and can teach students to find confidence in their own unique strategic methods. They may not win the first or second time, but they will learn how to win and excel. If these learned experiences can somehow be pivoted to academic achievement, then educators can potentially change students' outlook on school and academic achievement.

Motivating Students to Get Involved in Libraries

Makerspaces have become increasingly integrated by library programs throughout the nation to ensure all members of the student body have equal access to making in STEM-related fields. These libraries welcome young patrons to tinker with technologies old and new. However, the new—makerspaces—must supplement, not replace, older methods of delving into engaging learning experiences enhanced by opportunities to share and learn with others. Without sacrificing fun, students can immerse themselves in challenging quests—including those within games—that promote academic-readiness skills. Such skills are found in the attributes of student agency involving the ability to adapt to changing circumstances and the willingness to learn through experience—attributes that are applicable across multiple academic disciplines.

The introduction of games as learning tools requires a high burden of proof of value to overcome the misconception that playing and learning are separate and distinct states of being. Whether the topic is intuitive instincts or military training simulations, many learning experiences are built around the idea of fun (Mayer and Harris 2010, 10). While some educators may be apprehensive about embracing play as an instructional method, they do agree that problem-solving skills are an essential asset. Take, for instance, students in their pursuit of an education in homeland security who, despite gaining skills based on theories and concepts, are also challenged by the variety of issues and topics the field faces. Such varieties demand adept creativity to draw on knowledge that aims at assembling different types of information and evaluating it, applying implications that impact the present and the future, and making judgments about what it all means (Wheaton 2011, 368). Teaching professionals in academia and the workforce have acknowledged student agency as an important tool that should be fostered in curricula and training sessions. Students and prospective employees with knowledge of their own agency are inherently ahead of the learning curve, allowing them to focus on advancing their skills as opposed to playing catch-up.

Keith Cozine has discussed Tony Wagner's (2012) seven skills that students require as tools for success: "critical thinking and problem-solving; collaboration across networks and leading by influence; agility and adaptability; initiative and entrepreneurialism; effective oral and written communication; accessing and analyzing information; curiosity and imagination" (Cozine 2015, 3).

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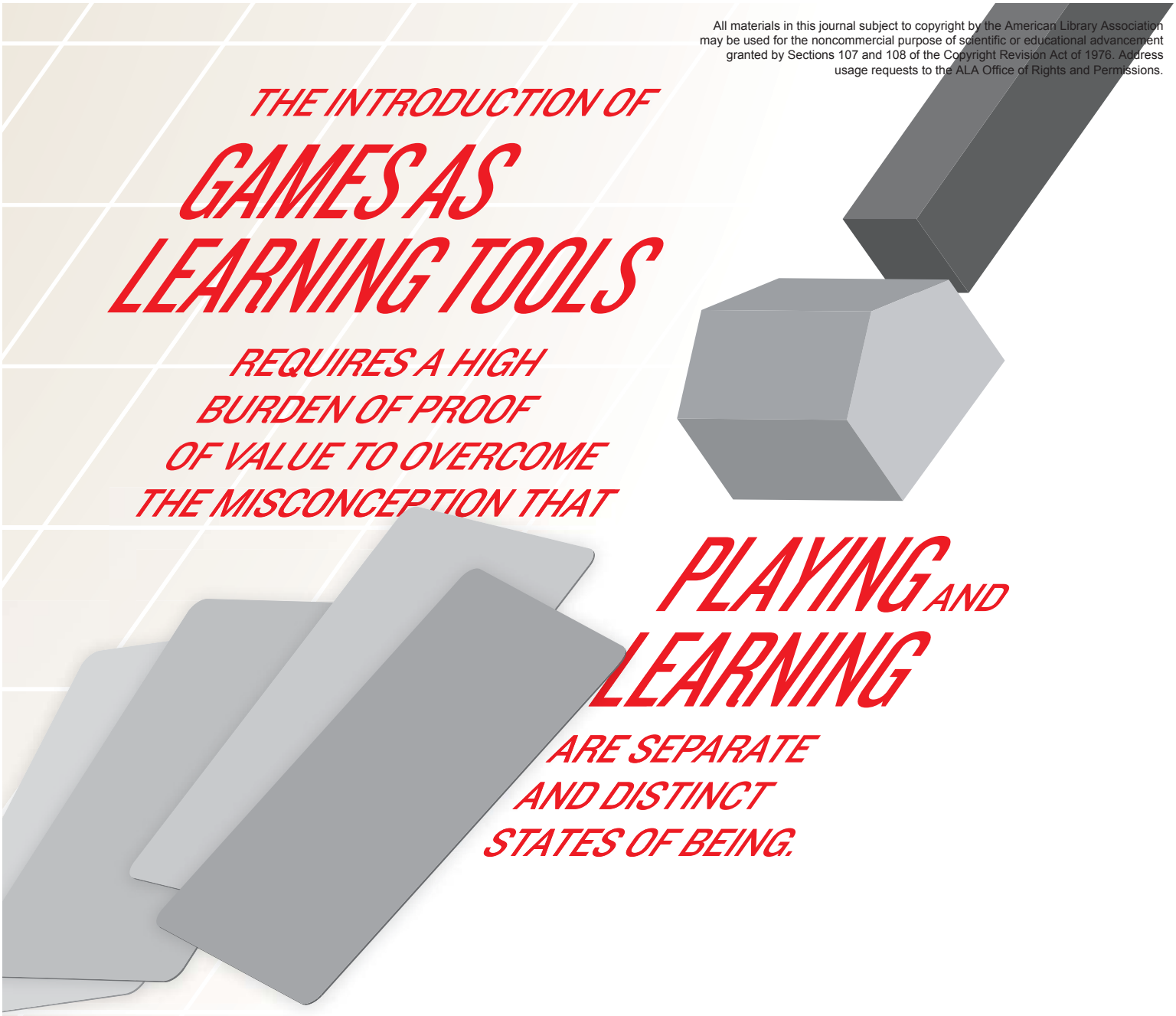

Each of these skills can be developed during the gaming experience.

For example, the game Agricola is a modern tabletop game based on time management and priority assessment in the development of a farm to maximize points by the end of a game that is limited to a brisk fourteen-turn limit. At least five of the skills Wagner identified are practiced when playing the game. During the game players, though not completely antagonistic toward each other, are not playing cooperatively either—a circumstance that is not dissimilar to the school experience. With each turn, each player places his or her workers on specific tasks to further develop the player's farm. The number of workers, however, is limited unless a player uses a turn to gather the resources necessary to expand the family at the cost of farm development. This requirement forces players to make a critical assessment of priorities to avoid penalties as Agricola uses this mechanism to force players to act. Players must also interpret the rules together, with the option to apply their own house rules as well as build upon a wide variety of skills. These include skills related to problem-solving, collaboration, agility and adaptability, initiative, communication, analysis, and curiosity. Critical thinking and imagination skills additionally follow as the game ends and final scores are assessed, leading to autonomous reassessment if the strategy used was ineffective within the time constraints.

As in the game, students must manage, assess, and reassess their own academic challenges. Just as Agricola forces players to consider the big picture of the goal of maximizing points, in school students must consider what actions must be taken to complete difficult academic work within a strict timeline. The ability for students to build on Wagner's seven skills for success is the link to exploring and extending their agency.

Advantages of Student Agency

It is important for students to develop their agency as they prepare for college and as they graduate and enter the workforce. Bradford Holmes, a contributor to *U.S. News and World Report's* education coverage, used the term "soft skills" to refer to elements of student agency as he shared that college-bound students require soft skills to become comfortable managing their time and working in groups to complete projects. These top five skills are collaboration, communication and interpersonal skills, problem-solving, time management, and leadership (2014).

Connections between Games and Developing Agency

Analog experiences offer students opportunities to engage in active interactions that involve reading, decoding, analyzing, assessing, and taking action in situations that are not static, all while sitting next to or across from each other. Games have the capacity to prepare students for a wider world of information by providing a platform for engagement through inquiry, all in an environment that is rich with content and fluid in nature (Mayer and Harris 2010, 25). Consider tabletop quests in Mansions of Madness, Pathfinder, or Zombicide, in which one player must obliterate a plague of enemies by collaborating with peers and strategizing the safest exit. Such survival combat requires players to harness their imaginations and critical thinking, as well as their motivation, without feeling like a failure in the event of failure or fostering ill feelings against peers. In fact, there is an intrinsic connection when, instead of dwelling on "beating" a peer, students delve into their own strategies to improve their skills. In other words, the students' objective is improving themselves, a self-determination that is enhanced when students believe that they can acquire new skills and improve on existing ones through focus and effort (Toshalis and Nakkula 2012, 34).

Appropriate Games for Fostering Development of Agency

If this type of self-motivation is what educators are aiming for, introducing the right tabletop games is as key an ingredient as lemons are to lemonade. What tabletop games can be considered educational for the purposes of improvising analytical strategy? Several U.K. universities have integrated the board game Quarto into their educational initiatives to build math skills and to support a social environment. Once students get involved in the game, the tendency is to gravitate toward game strategy involving the advantages of a particular position and the benefits of being the first player, as well as furthering their own curiosities through extracurricular investigations in game theory (Rowlett 2015).

Brian Mayer and Christopher Harris's 2010 book *Libraries Got Game* offers excellent tabletop game options that can be integrated in education curricula. The types of recommended games involve an interesting and exciting array of fun in modern tabletop games, especially those that have a European origin as they often rely on players' skills and have little or no reliance on luck. The master game designers create games with their targeted audiences (e.g., school libraries) and the age groups served in mind. What is unique about these games when compared to American traditional board games is that the European games often provide intellectual engagement in which decision-making opportunities are not shaped purely by rolling dice.

American Game Designers Get Onboard

For more than a decade, American game designers have also jumped on the modern game wagon by applying more interactive complexities beyond the luck of the dice. Unlike the American classics Monopoly or Risk, greater focus has been placed on cooperative play, variation in decision-making, multiplicity in victory paths, and fewer periods of inactivity during which a player waits for his or her turn (known as down time) (Levine 2008, 9).

The tabletop games that have proven successful at my library are Agricola; Descent: Journeys in the Dark; Dominion; Mansions of Madness; Mysterium; Pandemic; Pathfinder; Splendor; Star Realms; and Zombicide. Figure 2 compares the games' reliance on skills, luck, and reading frequency, all assessed on a scale from 0–10 based on observations at the library. The skills evaluation is based on strategy; the luck measure is based on how much success in the game relies on chance; the reading frequency assessment is based on the required engagement with text to minimize the aspect of luck as the game unfolds.

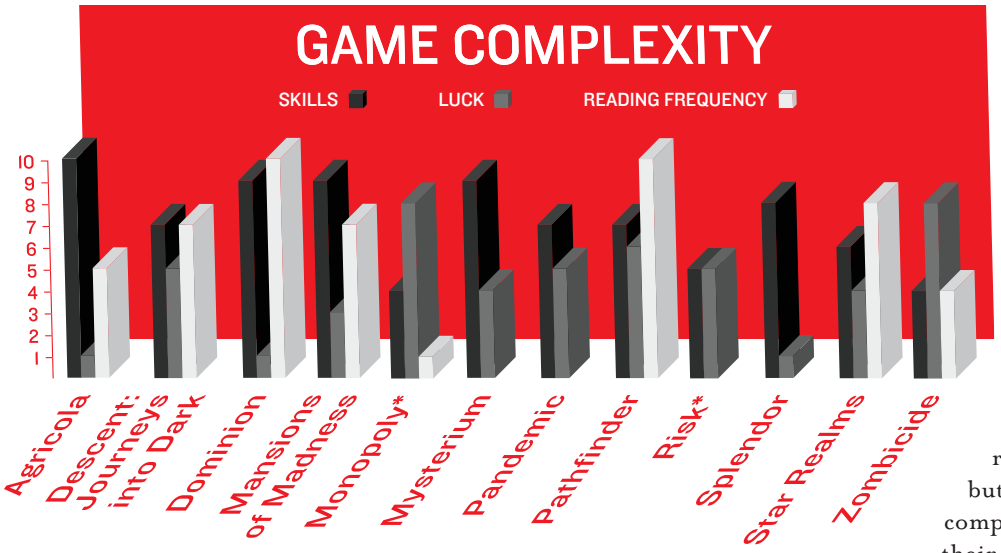

Figure 2. Assessment of complexity for classic games and for more-modern games popular at the author's library.

Figure 3 shows the attributes of each game based on cooperation, card draws, or tosses of dice. Identifying cooperative games has been an important tool for helping build confidence among students who prefer not to compete against each other. These games have also helped build camaraderie, leadership, and storytelling ability. The games' character cards describe various attributes, a circumstance that helps players notice the important benefits diverse strengths bring to collaboration. Dice in these types of games introduce a level of randomness and unpredictability. Games that rely only on chance are basic games that "have few rules and a very small learning curve" (Crews 2011, 10). On the other hand, games that do not have a mark on any of the categories in figure 3 are very creative in their approach as they focus on individual strategy.

Initially, all these games require a moderator who understands the rules and is highly motivated to involve the other players. The educator's goal is to identify and articulate leadership skills so that each participant can eventually be assigned as the moderator when the game is played in the future. Challenges for some players lie in poor comprehension skills due to a dearth of effort as the students have become accustomed to experiences that provide instant gratification. This expectation of instant gratification may, at first, result in students' professing a lack of interest in learning the nuances of the game. However, these students are, in fact, waiting to be drawn in by educators who "[help] them appreciate the range of possibilities in front of them" (Toshalis and Nakkula 2012, 35).

Inspiring students to become moderators is directly dependent on educators who are knowledgeable about the games' rules, breathe life into the game, and open the arena to inclusion and equity, despite players' diverse skillsets. If this drawing in is done in a way that allows each student to feel welcomed, motivation and engagement are likely to rise (Toshalis and Nakkula 2012, 33), building on players' self-determination to comprehend rules on their own and to summon the leader within.

Upon being asked to read the game handout or the rules printed in a short sentence on cards in students' decks, many students' responses are impressively identical and portray them as having almost no drive to learn the basic rules. Others read the short blurb willingly but experience difficulty in comprehension skills. When playing their favorite digital games, such as FIFA; Ratchet & Clank: All 4 One; ModNation Racers; and Dragon Ball Z, trial and error renders enough insight to experience the basics of the game. Engaging in digital challenges has in recent years become simplified, eliminating the literacy requirement.

Consequently, new self-defeating habits are being shaped by video games, habits that will follow young people in other areas of their learning experiences.

In the spring of 2015 students at our school were introduced to Magic: The Gathering, a collectible trading card game based on a battle of powerful wizards intent on obliterating one another. The reading frequency was minimal yet constant, fully reliant on comprehension. Students found the game unfamiliar and complicated. After meeting with staff and the library's teen advisory committee, it was agreed to first introduce games that required less reading, and to challenge students by easing them toward complex games. To teach the basics of card games and strategy, Splendor was introduced and received with a great deal of success. Participation evolved into Dominion and Star Realms, with Dominion being more skill-based and Star

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GAME	CO-OP	CHARACTER CARDS*	DICE
AGRICOLA			
DESCENT: JOURNEYS INTO DARK	●	●	●
DOMINION			
MANSIONS OF MADNESS	●	●	●
MONOPOLY*			●
MYSTERIUM	●		
PANDEMIC			●
PATHFINDER	●	●	●
RISK*			●
SPLENDOR			
STAR REALMS			
ZOMBICIDE	●	●	●

* Character cards have different attributes.

Figure 3. Degree to which popular games rely on cooperation, luck of the draw of character cards, or roll of the dice.

Realms introducing a strong element of luck. Zombicide became the next hit, giving students the opportunity to play cooperatively with one another while relying heavily on luck.

Students then began to express increased interest in other cooperative games, willingly engaging in games once deemed too complicated. These games were adopted in the following order: Descent: Journeys in the Dark; Mysterium; Pandemic; Pathfinder; Agricola; and Mansions of Madness. In the latest game, students have reached a balance between skills and reading frequency, while minimizing the negative aspects of luck. In my experience, students' preferences have evolved; where students once demanded games heavily reliant on luck, they now want to be the authors of their own destinies, testing their stratagems against their fellow students.

Supporting comprehension through play is part of enabling college and career readiness. While flawless graphics and special effects in digital games continue to attract attention, self-defeating habits are the consequence. As has been noted by AASL, technology skills are crucial for future employment needs. AASL also notes that the degree to which children can read and comprehend is a key indicator of success in school and in life; AASL also advocates learning experiences requiring students to collaborate (2009).

While the AASL standards are applicable to school libraries, the tabletop initiative can also be supported in public libraries with diverse age groups, from child to adult. Modern tabletop games have become more reliant on skills, encouraging players to identify their own personal habits (because habits shape skills) and develop finesse where necessary in a face-to-face social arena. This focus is very different from trying to defeat an opponent as the challenge in modern tabletop games is in players' recognizing their own habits of mind and their skills. Honing their own skills is where the ultimate reward resides. The goal of educators encouraging students to play these games is to plant a seed of stamina that is also applicable outside of the tabletop experience and in students' approaches to their academic work. The sooner concepts of agency are introduced, the sooner children will be able to identify their habits (as habits are shaped by their individualities), define their strengths, and reinvigorate skills within their comfort zone to achieve a victory. The purpose of engaging students in analog learning experiences is not to lure students away from digital media but to foster students' awareness of the habits formed by both analog and digital activities. For this reason, let's give students' opportunities to savor play in analog form, hone their skills, enable their agency, motivate them—and let the play unfold!

Vivian G. Alvarez *is a teen mentor at Chicago Public Library, developing programs supporting the maker movement and teaching STEM-based programs, coding, and digital media workshops. She works collaboratively with students to interpret, critique, and reimagine the physical, social, and cultural environments. With thirteen years of professional experience in the nonprofit field, she has implemented an innovative curriculum based on student agency and has worked within a variety of school and community contexts. She is a current graduate student at the School of Information Sciences at University of Illinois at Urbana-Champaign, concentrating in Youth Services. She is a member of AASL and was an ALA Spectrum Scholar.*

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