Playful Learning Over the Summer: Ignite by Hatch™ Supports Academic Practice and Fun in a Large Statewide Summer Program

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Executive Summary

- **This study investigated whether Ignite by Hatch™ can support continued skill practice over the summer while maintaining the crucial element of summer enjoyment.**

- The study focused on sites that were part of the Georgia Department of Early Care and Learning Summer Transition Program (STP) that implemented Ignite during the summers of 2021, 2022, and 2023.

- **The results show that Ignite supports the practice of language, reading, and math skills across the summer months.** Each summer, children progressed at least one level, on average, within the Ignite domains of Language & Communication Development, Literacy, and Mathematics.

- Responses from STP teachers regarding the impact of Ignite on their students revealed that Ignite successfully sustains the enjoyment of learning throughout the summer. In a survey, 28% of the teachers in the 2023 STP specifically emphasized Ignite's capacity to foster engagement and enjoyment among the students.

Introduction

The summer months provide an opportunity for children to take a break from their normal school routines and engage in the fun and adventures that only the summer season can offer. However, paired with the summer fun is the educational challenge of summer learning loss, often referred to as the "summer slide." Summer learning loss is a phenomenon in which students lose some of the knowledge and skills they worked hard to gain during the school year (Quinn & Polikoff, 2017). Concerns about summer learning loss date back more than a century and intensified during and after the COVID-19 pandemic (Cooper et al., 1996; Sparks, 2022). The biggest fear about summer learning loss is that children, especially those from underserved groups, will lose the learning momentum they made during the school year (Schwartz et al., 2018). This loss, if unaddressed, risks impeding children's readiness for the challenges of the next grade, preventing them from stepping into the new academic year with confidence and preparedness. To support children in their academic readiness and success, summer learning loss is an issue that needs to be addressed.

A key to addressing summer learning loss is exposing children continuously to essential subjects, such as reading and math, throughout the summer months (Schwartz et al., 2018). Exposure to these key subjects during the summer can help keep knowledge fresh in children's minds by creating opportunities for them to review the knowledge and skills they gained in the previous academic year. These opportunities for review are critical because practice is a vital component of learning (Brown et al., 2014). Recognizing the value of exposure and practice, educational institutions have implemented summer school programs to engage children in reviewing the prior year's material. When summer programs include ample opportunities for review, they are effective for preparing children to continue their learning in the next academic year (Schwartz et al., 2018).

However, beyond providing opportunities for review, it is also important that summer programs promote the fun of summer. It would simply be unfair for students who benefit most from summer school to have to miss out on the fun that other children experience throughout the summer months (Pappas, 2023). To strike the delicate balance between knowledge exposure and enjoyable summer experiences, summer programs often seek innovative solutions that preserve the summer fun while promoting exposure to core subjects.

In this study, we concentrate on a promising solution that seamlessly integrates exposure to academic concepts with the enjoyment of summer: Ignite by Hatch™ . Ignite is a digital learning tool designed to support kindergarten readiness based on research from the learning sciences (Hatch Early Learning, 2022). Ignite engages young learners in activities spanning seven domains: Mathematics, Literacy, Language & Communication Development, Social and Emotional Learning, Science & Technology, Physical Development, and Social Studies. Through a progression of eight skill levels in each domain, Ignite aligns with both pre-foundational preschool skills and more advanced elementary-school competencies. Rooted in a commitment to merging classroom-aligned skill practice with the joy of play, Ignite emerges as a potential solution for the dilemma of how to include fun in learning. **The primary question of this study is whether Ignite can support continued skill practice over the summer while maintaining the crucial element of summer enjoyment.**

METHOD

Participants

Summer Program

The study focused on sites that were part of the Georgia Department of Early Care and Learning Summer Transition Program (STP). The STP is a Georgia statewide summer school program that provides instruction focused on core academic skills, including literacy, language development, and mathematics, to rising kindergarteners. Public and private licensed childcare centers from across the state of Georgia can apply to be part of the STP. Varying numbers of STP classes were given the option to use Ignite over the course of three summers: 2021, 2022, and 2023. In 2021, 193 classes could use Ignite; in 2022, 315 classes could use Ignite; and in 2023, 320 classes could use Ignite. For the purposes of this research, we examined STP classes that ultimately implemented Ignite over the summer. In 2021, there were 119 classes that implemented Ignite; in 2022, there were 223 classes that implemented Ignite; and in 2023, there were 234 classes that implemented Ignite.

Children

Over the course of the three summers, a total of 8,939 children in the STP engaged with Ignite. As with the classes that implemented Ignite, the number of children that used Ignite varied across the three summers. In 2021, there were 2,241 children who engaged with Ignite; in 2022, there were 2,946 children who engaged with Ignite; and in 2023, there were 3,752 children who engaged with Ignite. All participating children were set to enter kindergarten in the upcoming academic year, with all reaching the age of 5 by September 1st of the respective STP participation year. Additionally, to qualify for participation in the STP, children had to meet at least one of several criteria.

Eligibility required that children had not attended or completed a full year of Georgia pre-K or Head Start programs or that they needed academic support, were dual-language learners, were placed in foster care, lacked permanent housing, or had an Individualized Education Program.

Ignite Implementation Protocol

The duration of the STP varied each summer: it was 8 weeks long in 2021, 6 weeks long in 2022, and 5 weeks long in 2023. Preceding each summer, teachers were provided with the opportunity to participate in professional development training sessions focused on Ignite. Additionally, in 2023, Hatch employees visited classrooms during the initial 2 weeks of implementation to offer support and ensure a smooth integration of Ignite into the curriculum. Hatch Early Learning generally advises that each child in a classroom engages with Ignite for a duration of 30 minutes per week. Considering the varying program lengths during the three summers, the recommended total Ignite time for each child was 240 minutes in 2021, 180 minutes in 2022, and 150 minutes in 2023. In 2021, children used Ignite for more than the recommended amount of time, for an average playtime of 840 minutes per child. In the summers of 2022 and 2023, children used Ignite for slightly less than the recommended time: in 2022, children played for 132 minutes on average, and in 2023, children played for 128 minutes on average.

Survey Protocol

At the end of the 2023 summer, all teachers were asked by the Georgia Department of Early Care and Learning to complete a survey about the implementation of Ignite that summer. The survey included 12 questions about teachers' opinions on Ignite and its report management system. There were 108 teachers who responded to the survey. We focused on the responses to one open-ended question, "Please share any interesting experiences about how Ignite by Hatch impacted individual children." The responses were then categorized by theme.

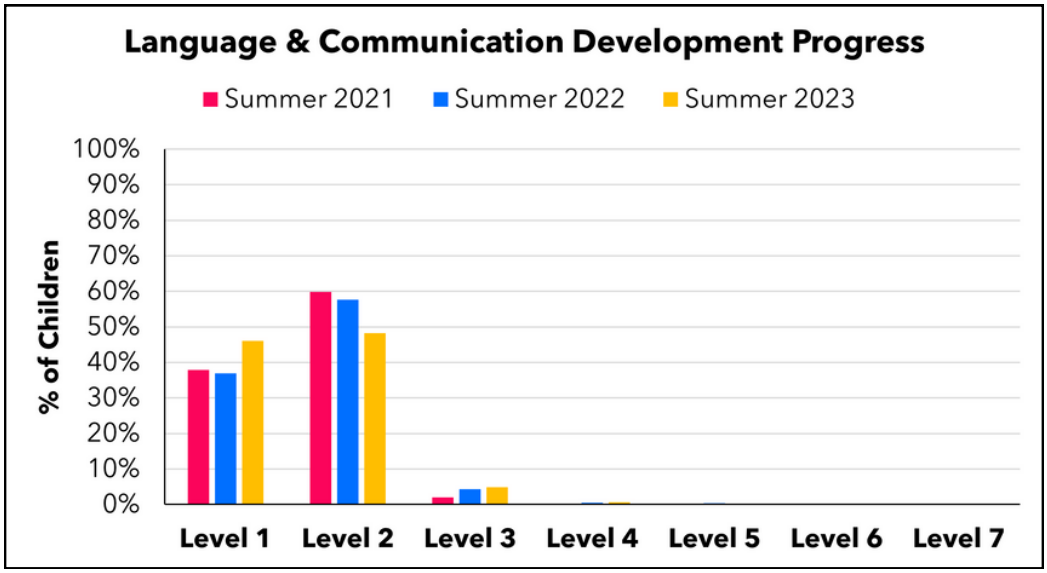
RESULTS

We answer the research question of whether Ignite can support continued skill practice over the summer while maintaining the summer fun in two parts. First, we answer whether Ignite can support continued skill practice over the summer by examining the progress children made in Ignite each summer. Next, to examine whether Ignite maintains the fun across the summer months, we turn to the survey data and consider teachers' responses to the question of how Ignite impacted the children in their class.

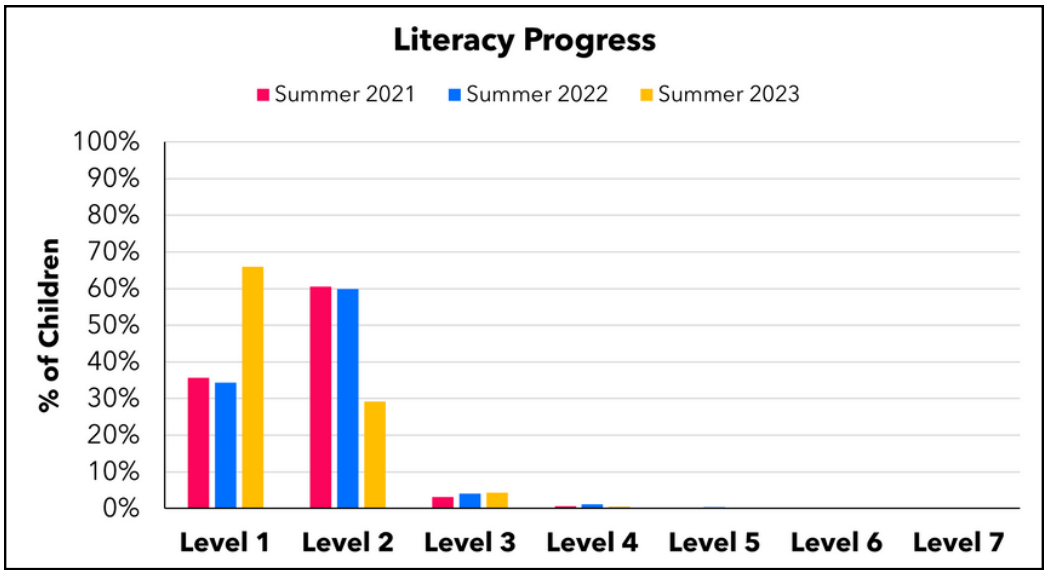
Does Ignite Promote Practice?

Central to the examination of whether Ignite supports practice over the summer is the concept that as children advance through various Ignite levels within the core domains, they engage in active review and practice of essential reading, math, and language skills. Therefore, if children make progress through Ignite levels, then Ignite has created opportunities for academic practice throughout the summer. The results show that Ignite supports the practice of language, reading, and math skills across the summer months. Each summer, children progressed at least one level, on average, within the Ignite domains of Language & Communication Development, Literacy, and Mathematics. This growth is strong, given that we expect four levels of growth in Ignite across a complete academic year.

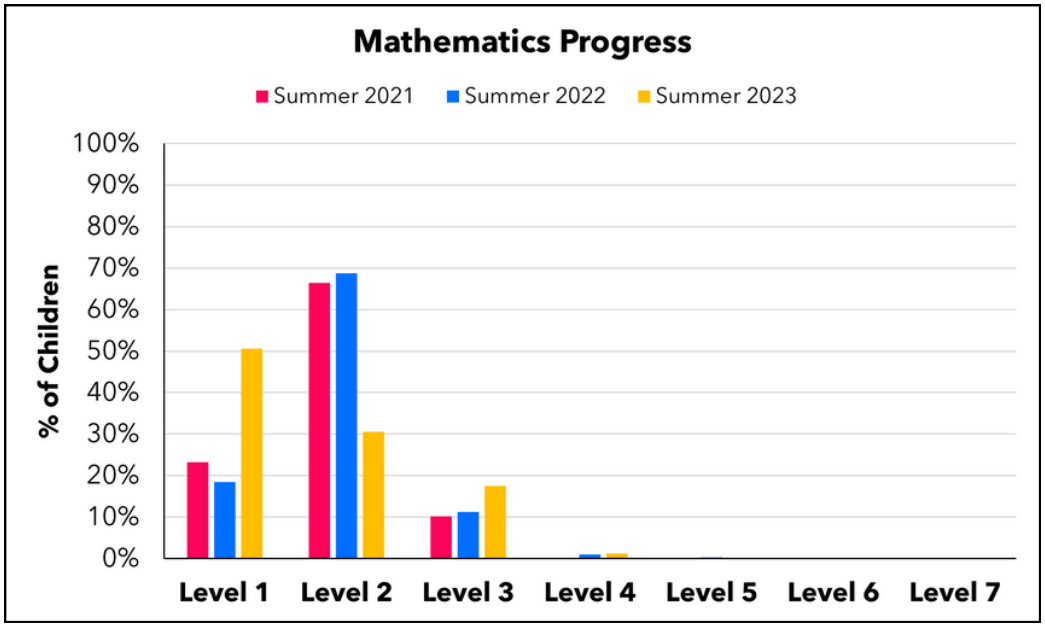
First, in the Language & Communication Development domain, children progressed through an average of at least 1.6 levels each summer. On average, children progressed through 1.6 levels in 2021, 1.7 levels in 2022, and 1.6 levels in 2023. This means that on a weekly basis, children passed through at least one-fifth of a Language & Communication Development level on average. The graph below shows the percentage of children that reached each Language & Communication Development level each summer.



Second, in the Literacy domain, children progressed through an average of at least 1.4 levels each summer. On average, children progressed through 1.7 levels in 2021, 1.7 levels in 2022, and 1.4 levels in 2023. This means that on a weekly basis, children passed through at least one-fifth of a Literacy level on average. The graph below shows the percentage of children that reached each Literacy level each summer.



Finally, in the Mathematics domain, children progressed through an average of at least 1.6 levels each summer. On average, children progressed through 1.9 levels in 2021, two levels in 2022, and 1.7 levels in 2023. This means that on a weekly basis, children passed through at least one-fifth of a Mathematics level on average. The graph below shows the percentage of children that reached each Mathematics level each summer.



Does Ignite Maintain Fun?

Responses from STP teachers regarding the impact of Ignite on their students revealed that Ignite successfully sustains the enjoyment of learning throughout the summer. These responses were categorized by theme, with the predominant recurring theme being the engaging and enjoyable nature of Ignite for children. Notably, 28% of the teachers in the 2023 STP specifically emphasized Ignite's capacity to foster engagement and enjoyment among the students. One teacher explained, "All of my students love to use [Ignite by] Hatch, and it was so interesting that all of my students, even my students with Individualized Education Programs, loved to use [Ignite by] Hatch." Another teacher shared, "I love how the students are engaged in the program. They are learning without realizing that they are engaging in assessment/learning."

CONCLUSION

The results of this study show that Ignite can support the practice of core academic skills while fostering children's fun and enjoyment throughout the summer months. The progress children make through Ignite levels over the summer demonstrates that children are practicing their literacy, language, and mathematics skills. Moreover, teachers report that their students are engaged by and having fun while using Ignite. Together, these results show Ignite's value as an innovative solution for summer school programs.

Although these results are encouraging, it will be important to replicate this study among other summer school programs. Additionally, it would be valuable to have survey responses from teachers across all three summers and survey questions that further consider the impact of Ignite on children. Future research should also consider whether the progress children make in Ignite throughout the summer fosters their kindergarten readiness for the upcoming academic year. Hatch Early Learning is committed to these ongoing research initiatives.

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