

Imagine Learning Partners with Johns Hopkins University to Measure the Impact of its Spanish Reading Comprehension Program, Imagine Lectura

Imagine Learning partners with school districts and independent research firms to evaluate and document the effectiveness of Imagine Learning products on student outcomes. The intent of these research studies is to report on student engagement and progress with Imagine Learning products, examine how Imagine Learning products affect student achievement and growth, and illuminate the barriers and best practices of first-year implementations. Imagine Learning disseminates research results to support partner districts in their second-year implementation and to help other similar districts understand how to best leverage the product for their own implementations and improve student academic gains. This report will review the findings from such a first-year implementation study.

During the 2021–2022 school year, Imagine Learning partnered with a school district in Texas that implemented Imagine Lectura with Spanish-speaking students in Grades 3–5. This research partnership provided an opportunity to investigate the impact of Imagine Lectura on student outcomes and explore implementation factors that influence that association. Imagine Lectura is a blended-learning program, where some program components are completed by students online and others in offline face-to-face activities. It is important to note that the 2021–2022 school year represented a post-pandemic year when the district was striving toward “back to normal” for students and educators. This study was designed to answer four research questions (included in the Research Questions and Findings section), each ultimately helping Imagine Learning understand how the program impacted learning gains for students and how implementation factors impacted those gains.

To answer the research questions, Imagine Learning leveraged the expertise of the Center for Research and Reform in Education at Johns Hopkins University (JHU CRRE) as the independent evaluator to assess how Imagine Lectura impacted students’ Spanish reading achievement. The research study employed a randomized controlled trial design to satisfy the criteria for attaining Tier 1 (Strong) research evidence as defined by the Every Student Succeeds Act (ESSA, 2015). Sixty-one Grades 3–5 classrooms (analytic sample $N = 1165$) across 11 elementary schools were randomly assigned to either the treatment group (users of Imagine Lectura) or control group (non-users of Imagine Lectura). See Tables 1 and 2 for a breakdown of the analytic sample by grade and demographics.

Table 1. Sample n by Grade

| | Treatment Class n | Control Class n |
|---------|-----------------------|---------------------|
| Grade 3 | 12 | 14 |
| Grade 4 | 9 | 8 |
| Grade 5 | 9 | 9 |
| Total | 30 | 31 |
| | Treatment Student n | Control Student n |
| Grade 3 | 238 | 269 |
| Grade 4 | 187 | 147 |
| Grade 5 | 161 | 162 |
| Total | 587 | 578 |

Table 2. Analytic Sample Demographics

| | Treatment | Control |
|------------------------------|-----------|---------|
| % Black or African American | 2.82% | 1.70% |
| % Hispanic | 89.80% | 93.01% |
| % White (Non-Hispanic) | 3.25% | 3.59% |
| % Female | 50.34% | 53.45% |
| % Economically Disadvantaged | 79.83% | 83.93% |
| % Students with IEP | 5.64% | 4.91% |
| % English Learners | 73.97% | 73.53% |
| Total | 587 | 578 |

Imagine Lectura

Imagine Lectura is a blended-learning Spanish language arts program where students complete work and participate in activities both online and offline. Instructional material is organized into units, and the beginning of each unit leads with a Focus Question. The Focus Question starts with a video that introduces students to the unit topic and is followed by a teacher-led discussion. Next, each unit contains six passages (except for one Jump Start Unit per grade, which only contains two passages). Each passage begins with an offline, teacher-led Power Sentence Lesson, where students explore an information-packed sentence. Students explore the sentence's meaning, language, and syntax, and then decompose and recompose the sentence to discuss how the meaning changes. Following the Power Sentence Lesson is online independent close reading, where students read a text and respond to comprehension questions along the way. Next, students engage in an offline, teacher-led Dictado Lesson, where students have the opportunity to engage in spelling, language arts, and grammar tasks. At the end of each passage is an offline, teacher-led discussion, which connects the text students read to the unit Focus Question. After completing all six passages, students engage in a Synthesis Project, where they work in groups to apply their learning. The goal of the Synthesis Project is for students to articulate and defend a shared, negotiated response to the unit Focus Question.

Teachers in the study were provided a weekly schedule to guide their implementation. Their schedules were organized so that students would complete five units, including 26 passages and all offline components, over the course of the academic year. To completely implement one full unit, teachers were expected to spend between approximately eight hours on offline materials and 3.5 to 4.5 hours on online materials.

Data and Metrics

Because Imagine Lectura is a blended-learning program, students' work online is documented, but it is not possible to report individual student engagement and progress in its offline components. The online engagement and progress metrics that JHU CRRE used were (1) total hours active in Imagine Lectura, (2) number of unique days logged into the program, (3) number of units completed online, and (4) number of passages completed online. Each of these metrics are reported by grade in Table 3. On average and across grades, students used online components of Imagine Lectura for 3–6 hours and completed 14–21 passages. Although there are no formal recommendations for time spent online in the program, teachers' weekly schedules planned for the completion of 26 passages. Comparison of scheduled and actual program engagement indicates that, overall, students used the program below expected levels.

To measure students' Spanish reading skill growth, JHU CRRE gathered the Renaissance Star Spanish Reading assessment scores for treatment and control students. It was administered to all Spanish-speaking students in Grades 1–5 in the fall, winter, and spring of the 2021–2022 school year. Scaled scores on this assessment range from 600–1400.

Additionally, Imagine Lectura teachers completed an optional questionnaire in Spring 2022. The questionnaire addressed topics such as program implementation, general instructional practices, professional development, and program perceptions.

Table 3. Imagine Lectura Average Engagement and Progress Metrics

| | Hours Active | Days Active | Unit Completed | Passages Completed |
|-------------------|--------------|-------------|----------------|--------------------|
| Grade 3 (n = 182) | 5.92 | 20.30 | 3.18 | 20.20 |
| Grade 4 (n = 118) | 3.85 | 13.20 | 2.58 | 14.50 |
| Grade 5 (n = 105) | 5.42 | 17.79 | 3.51 | 17.35 |

RESEARCH QUESTIONS AND FINDINGS

Overall, implementation of Imagine Lectura was highly variable. Generally, students completed fewer units than scheduled, but implementation differed across students and teachers. The number of passages students read varied widely, as did the frequency with which teachers utilized offline components of the program. However, results



demonstrate the promising impact of Imagine Lectura. Students who used the program scored slightly higher than control students at the end of the school year on a measure of Spanish reading comprehension, although the difference was non-significant. And students who completed more online passages tended to achieved greater Spanish reading comprehension scores. Additionally, teachers enjoyed the program and felt it improved their instruction. In what follows, we dive into these findings, providing results in greater detail for each research question.

Research Question 1. To what extent do teachers implement Imagine Lectura with fidelity?

- **Findings.** Teachers were expected to have students complete five units, which includes 26 passages and all offline components of the program. According to available program data regarding the online independent passage reading, students completed an average of 2–4 units and read 14–21 passages (see Table 3), which was lower than expected. Results from the teacher survey shed light on the use of offline activities; approximately half of teachers incorporated the offline components of the program as recommended. Out of the 22 teachers who completed the survey, the leading Focus Question discussion was conducted by 12 teachers for most units or every unit, and 11 teachers conducted Power Sentence Lessons before most passages or every passage. The Synthesis Project was assigned by ten teachers at the end of most units or every unit. Therefore, implementation was below expectations overall.

Research Question 2. How do teachers incorporate Imagine Lectura in their classroom?

- **Findings.** According to results from the teacher survey ($N = 22$), nine teachers reported that when implementing the program, they had students complete all passages within the same unit, including engaging with offline teacher-led lessons and independent activities. On the other hand, six teachers allowed students to select their own passages, without requiring them to complete all within a unit, but incorporating some of the offline lessons and activities. And six teachers reported assigning online passages only.

Research Question 3. What is the impact of Imagine Lectura on student Spanish Language Arts (SLA) achievement?

- **Findings.** Students who used Imagine Lectura scored an average of 2 points higher than control students on the Spring 2022 administration of the Renaissance Star Spanish Reading assessment (controlling for prior achievement, student demographics, school, and grade effects). However, this difference was not statistically significant ($p = .59$).

Research Question 4. How do changes in outcomes achieved by subgroups of Imagine Lectura students compare to changes achieved by students who did not use Imagine Lectura?

- **Findings.** There were no differential impacts of the program for students in different grades, by special education status, or by economically disadvantaged status. When examining differential impacts based on students' prior Spanish reading achievement, the strongest effects, although not statistically significant, were found for students with the lowest initial ability levels ($p = .27$).

Research Question 5. Are changes in Imagine Lectura students' SLA achievement associated with how Imagine Lectura was used?

- **Findings: Correlational analyses.**¹ Imagine Lectura usage metrics (hours, days, units completed, and passages completed) were correlated with Renaissance Star Spanish Reading assessment scores. Weak but positive and statistically significant correlations were observed in the third grade only between Spring 2022 scores and active hours ($r = .18, p < .05$), and between Spring 2022 scores and active days ($r = .15, p < .05$).

¹ It is important to note that because only some Imagine Lectura activities are completed online, these metrics alone do not capture a full implementation of the program. It is possible that different or stronger results may be observed if engagement and progress in all activities, online and offline, could be accounted for.

- **Findings: Regression analyses.**¹ Regression analyses revealed a marginally significant association between active hours in Imagine Lectura and SLA achievement. For each additional hour spent in the program, students improved their Spring 2022 Renaissance Star score by 0.86 points ($p = .06$).
- **Findings: Regression analyses by program usage quartiles.**¹ Students were organized into quartiles based on their active hours in the Imagine Lectura program. Quartile 1 included students with the fewest hours, while Quartile 4 included students with the most. Students in Quartile 3 (3.71–6.11 hours) had significantly higher Renaissance Star Spanish Reading scores compared to control students ($p = .02$).

Research Question 6. What are teachers' perceptions of Imagine Lectura?

- **Findings.** Teacher perceptions were overall positive; 17 of 22 teachers would recommend the product to other teachers, and 18 claimed it enhanced the overall success of their SLA instruction. Additionally, 17 teachers felt that the blended-learning model worked well in their classroom.

Research Question 7. What factors help or hinder the implementation of Imagine Lectura?

- **Findings.** Principals noted three factors that hindered implementation: the lingering effects of the pandemic, limited professional development, and lack of time. Regarding the pandemic, principals reported that the first year back from the COVID-19 pandemic was more challenging than anticipated. Validating the principals' point about limited professional development, 12 of 22 teachers indicated they did not receive an appropriate amount of training for Imagine Lectura. Additionally, 12 teachers did not feel they received an appropriate amount of training for the program, and principals reported that time was too limited for teachers to fully implement the program. They partially attributed this to Texas House Bill 4545, which required some students to receive 30 hours of additional instruction time, taking away from the time teachers had for Imagine Lectura.

DISCUSSION

In this study, teachers in Grades 3–5 initiated implementation of Imagine Lectura, a blended-learning supplemental SLA program, in their first-year post-pandemic. We present the unique challenges and opportunities presented by blended-learning supplemental programs and how they may need to be treated differently by teachers, districts, and online learning providers such as Imagine Learning. We also discuss lessons learned from this partnership to inform future implementations of Imagine Lectura and demonstrate ways Imagine Learning can support partner districts.

Unique Challenges of a Blended Learning Program

A blended-learning supplemental program presents unique challenges for educators, particularly during a first-year implementation. Specifically, teachers need to learn teacher-led components and become familiar with online and student-directed components to fully manage program implementation. Additionally, effectively blending teacher-led instruction and online independent-practice requires exposure to or knowledge of blended learning (Jerry & Yunus, 2021), adding additional complexity to the challenge presented by a first-year implementation. To mitigate these challenges, blended-learning programs require extra support, communication, time, and training from the program provider, district leadership, and school leadership compared to other programs (Bailey et al., 2013; Sakina et al., 2020). Indeed, survey results demonstrated that a majority of teachers in this study did not fully implement all components of the program and did not feel they received adequate implementation support.

When implementing a blended-learning program, a major challenge to overcome is that a teacher's role is different than when using a fully online supplemental program. Fully online supplemental programs are traditionally used during independent student-practice times, where teachers' responsibilities tend to center on monitoring student engagement and progress in the program. With a blended-learning program, instruction is integrated with monitoring independent work. Teachers are expected to instruct and monitor performance during supplemental time, when they may typically be working with small groups or with students one-on-one. They must also thoughtfully integrate offline and online components, maintaining knowledge of all program components and how they are intended to work together for optimal student outcomes.



Implementing a blended-learning supplemental program is likely to require more teacher time and effort. However, combining the strengths of both traditional face-to-face teaching and online instruction has demonstrated positive effects on student learning and motivation (Albiladi & Alshareef, 2019; Li & Wang, 2022; Lusa et al., 2021; Means et al., 2013). Results from this study begin to reflect this effect; evidence trends toward a positive impact of product engagement on student outcomes.

Overall, implementing blended-learning programs presents unique challenges. However, these programs have the potential to impact student learning in positive ways by leveraging the best of face-to-face and online instruction. Teachers provide direct instruction of skills students need to be successful, while students practice independently, receive automatic feedback, and apply their learning both independently and with peers. Therefore, educators and researchers are charged with the task of exploring ways to overcome these challenges to deliver optimal educational experiences.

Conclusion

As noted, teachers encountered multiple challenges implementing Imagine Lectura. These challenges included: (1) the study took place in the first-year post-pandemic, (2) this was the first year teachers and students used the program, and (3) the program being examined was a blended-learning supplemental program. Taking this into consideration, it is not surprising that students and teachers completed fewer units than recommended.

While underutilization of Imagine Lectura may in part explain why the results on the Renaissance Star Spanish Reading assessment were not statistically significant, it is important to note that JHU CRRE observed small, positive associations between product usage and Spanish reading achievement. This indicates that as students increasingly engage with and progress through Imagine Lectura material, they are likely to see a positive impact on Spanish reading achievement. Additionally, teachers had favorable impressions of the program and felt it strengthened their SLA instruction.

Because of the unique considerations of a blended-learning program, Imagine Learning suggests that those interested in using Imagine Lectura should ensure teachers have enough support, resources, and time to implement the program to the extent required to maximize student learning. If a school district plans to utilize Imagine Lectura's offline resources (e.g., Power Sentence Lessons, Dictado Lessons, Synthesis Projects), teachers may require additional professional development from Imagine Learning throughout their implementation. Additionally, Imagine Learning will continue to investigate ways to promote engagement and progress for all students seeking the development of Spanish reading comprehension. This may include differentiated supports for various methods of implementation.

Overall, this study sheds light on the potential for a blended-learning program to impact students' Spanish reading achievement. The research partnership provided Imagine Learning with initial evidence that Imagine Lectura may impact student outcomes as students spend more time in the program. Although the current study can only assess associations between online usage and student achievement growth, it is likely that details surrounding utilization of offline activities greatly impacts student achievement as well. Further research is needed within varied implementation contexts to establish replicable conclusions. We wish to thank our partnering district in Texas for their support and participation in this efficacy research study.

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