

Why it works

A quantitative analysis of the efficacy of LiteracyPlanet's digital programme by PricewaterhouseCoopers.



pwc

Executive Summary

LiteracyPlanet has already established itself as a leader in the online education sector. In the past 12 months, this award winning learning program has helped improve literacy outcomes for over half a million students in more than 100 countries around the world.

LiteracyPlanet recognises for the program to continue to be a success, there must be an understanding around how teachers and students are engaging with it.

With this in mind, LiteracyPlanet partnered with PricewaterhouseCoopers (PwC) to undertake an immense, ambitious project; analyse the efficacy of LiteracyPlanet's digital programmes to provide an informed view of what is working well.

The project

After multiple workshops, extensive planning and careful coordination between both parties, PwC analysed 200 LiteracyPlanet data tables; the equivalent of over 500 million rows of data. This information corresponds to student's scores and usage levels over a two-year period, from 2016 to 2018.

PwC executed the PwC Data and Analytics Framework to merge, understand and validate the data, applying advanced analytic tools to identify student cohorts, inflection points and any trends in the data. This allowed PwC to glean insight about students using LiteracyPlanet and identify key focus areas.

PwC was able to make a journey from raw data to refined insight and gain a valuable understanding about how students and teachers have been finding success with LiteracyPlanet and why this approach works.

Key findings

PwC's extensive data analysis of LiteracyPlanet provided valuable insight, not just in terms of showing what LiteracyPlanet can do, but how it is best used and why it provides such a unique offering in the world of online literary learning.

PwC has proven LiteracyPlanet:

- Builds a strong foundation in literacy
- Pushes students ahead of the pack
- Makes catching up fun and effective

PwC also identified the circumstances where LiteracyPlanet provides the most significant benefits which can be used as a set of 'best-practice' guidelines for teachers using the program.

PwC was able to identify the optimal:

- Number of exercises
- Number of subjects
- Subject combinations
- Balance between self-chosen subjects and teacher assigned subjects

PwC was ultimately able to prove LiteracyPlanet can do things other online education programs simply can't. It's time to see why LiteracyPlanet works.

1. How schools are using LiteracyPlanet

Section 1: How students are using LiteracyPlanet

Over 380,000 students across 161 countries used LiteracyPlanet in the period analysed by PwC, with students spending an average of 2-5 minutes on each exercise.

Spelling and comprehension were the subjects that recorded the highest levels of usage and typically students would be completing exercises considered to be at their literacy level. However, more than a quarter of students using the program were still completing exercises considered to be below their literacy level (Figure 1).

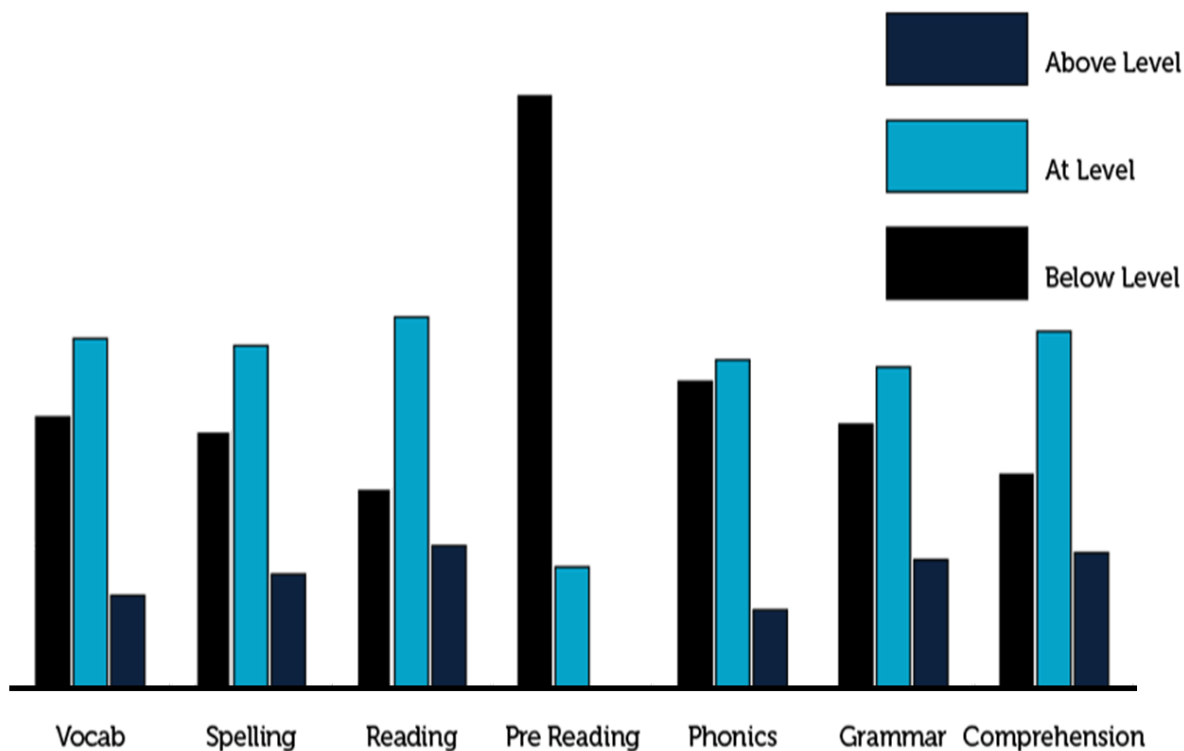


Figure 1: Breakdown of level type across subjects

In each subject the majority of students take exercises which are considered to be at their level, with a small cohort taking subjects above their level as a form of extension or below their level as a remedial measure. The exception of this in Figure 1 is the 83% of students taking pre-reading subjects, but this is indicative of the introductory nature of these subjects.

PwC analysis also provided valuable information on the way students were engaging with LiteracyPlanet in class, and the impact this was having on their regular work. PwC determined 93% of students complete 150 LiteracyPlanet exercises or less.

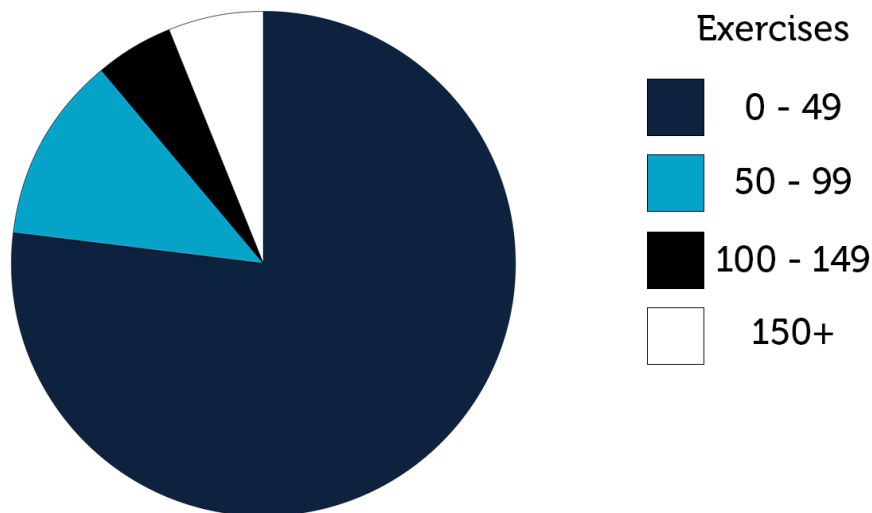


Figure 2: Number of students by number of LiteracyPlanet exercises completed

Roughly 23,000 students complete more than 150 exercises, while two students appeared to have incredible levels of engagement with one completing over 9,000 exercises and the other completing around 5,000 exercises during the measurable period.

Section 2: How teachers are using LiteracyPlanet

PwC's analysis was able to provide some interesting takeaways about the ways teachers are putting LiteracyPlanet to use in the classroom, and how this approach differs slightly to the way students engage with the program.

The biggest difference comes in exercise selection. When students are left to their own devices and select their own LiteracyPlanet exercises, PwC found the overwhelming majority would choose exercises below their literacy level. By comparison, most teachers would assign exercises at their students' literacy level or above (Figure 3).

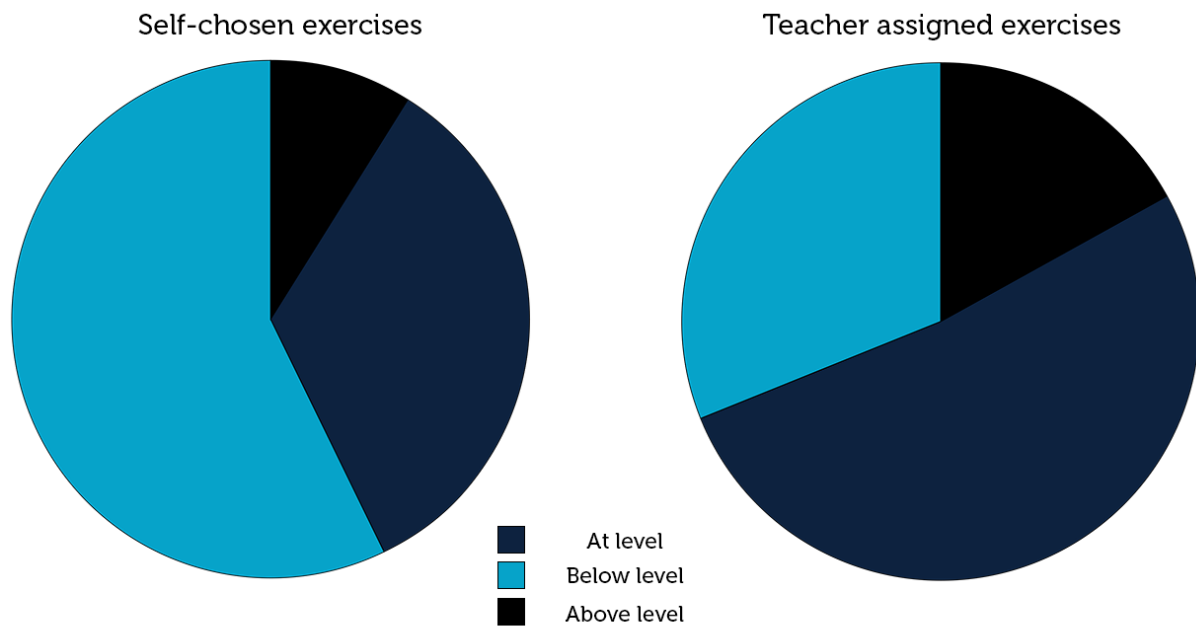


Figure 3: Self-chosen exercises vs teacher assigned exercises

It's also interesting to observe how the variety of exercises changes slightly when you compare self-chosen exercises to those that have been assigned by teachers. PwC found students have a tendency to select exercises over a narrow range of subjects, whereas teachers tend to assign exercises over a well-rounded range.

3. Why it works

Section 1: Builds a strong foundation in literacy

PwC was able to prove LiteracyPlanet is an effective tool to help teachers build a strong foundation in literacy for students of all ages and levels (Figure 4).

The general trend reveals all students will record an improvement in their literacy score with continued use of the program. With the completion of just 30 exercises, PwC observed a noticeable improvement in students of all levels.

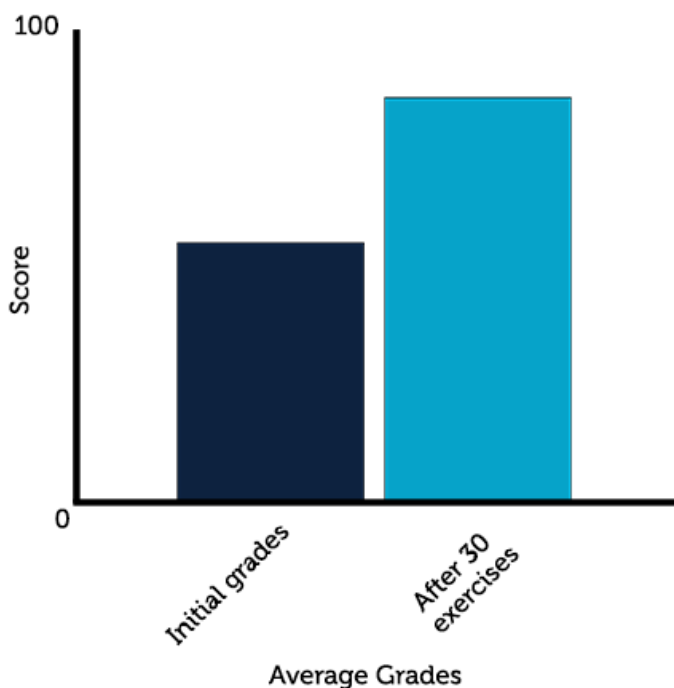


Figure 4: Change in average score

PwC determined by year level, students in Years 1-6 saw the most significant improvement, while the strongest, most consistent rates of improvement were seen in students between Years 3 and 6. Building a strong foundation in literacy at an early age is crucial, and this analysis proves LiteracyPlanet does exactly that.

Section 2: Pushes students ahead of the pack

PwC analysis was also able to reveal how LiteracyPlanet can be used as an effective tool to challenge high performing students and ultimately push them ahead of their peers. To do this, PwC compared the literacy scores of students using LiteracyPlanet at different rates (Figure 5) and observed the impact this had on their grades.

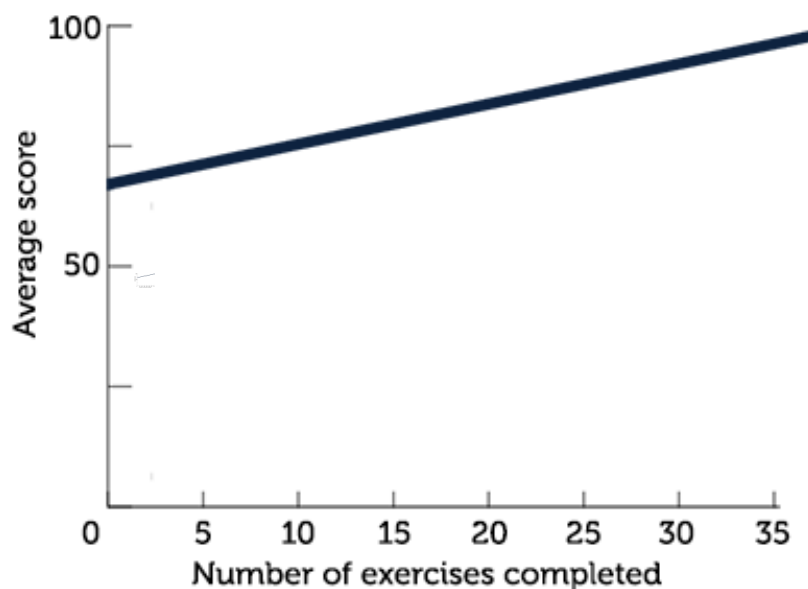


Figure 5: Number of Assigned Exercises per Student per Month

PwC compared the rate of improvement for students completing four assigned exercises per month to those who were only completing two exercises per month. While both groups recorded improvements as they used the program, the group completing four assigned exercises per month did so at a discernibly higher rate (77% vs 75.5%).

This data shows LiteracyPlanet gives students an edge, and the more a teacher uses it the greater this advantage. Something as simple as assigning an extra two exercises per month, is enough for teachers to give their students an advantage.

Section 3: Makes catching up fun and effective

PwC's analysis was also able to show how LiteracyPlanet can help students falling behind the rest of their year level catch up to their peers (Figure 6).

To do this, PwC divided students into four equal groups based on their literacy ability when they first commenced the program. Immediately, PwC observed a gap of 18 grade points between the bottom 25% of students and the next lowest group.

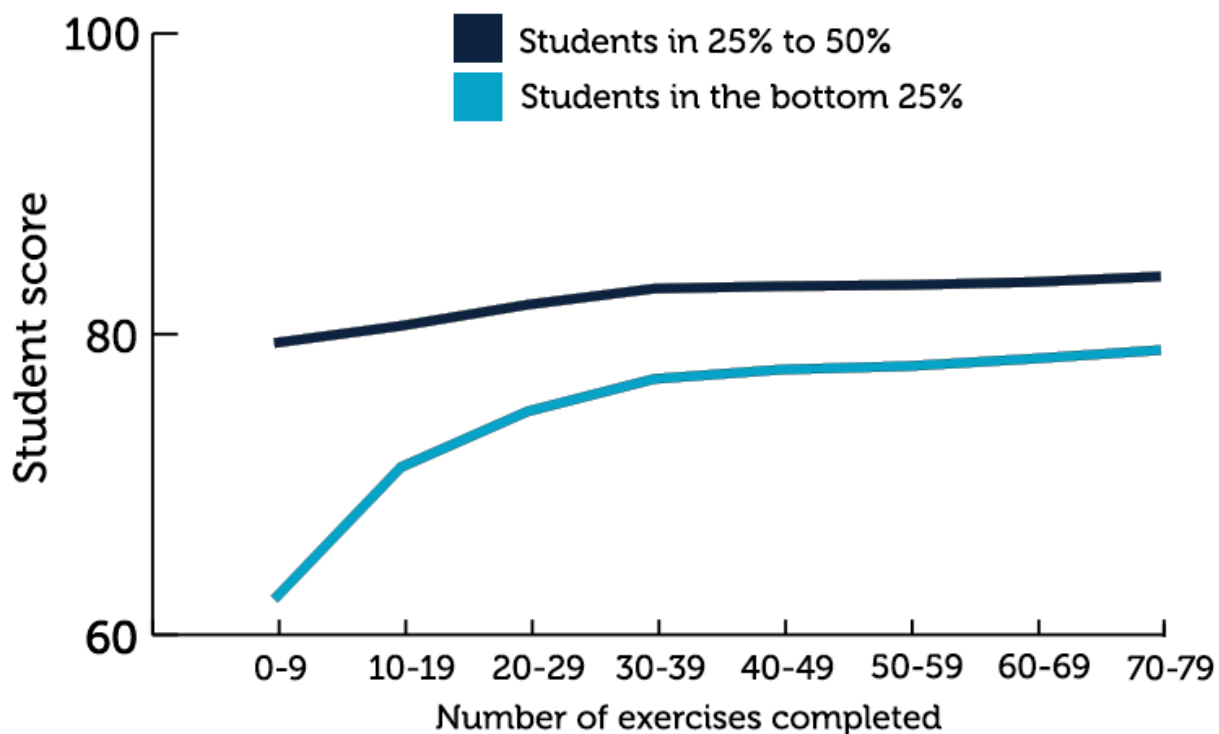


Figure 6: Average score for grade level by number of exercises completed

PwC's analysis found students in the bottom 25% of scores after the first month of use recorded the most significant improvement as they completed more exercises.

After just 30 exercises the gap in average scores between students in the bottom 25% of scores and students in the next best group (who were also improving as they completed more exercises) reduced by over 70%. This proves LiteracyPlanet's comprehensive, gamified style of learning is highly effective as an intervention tool for struggling students.

4. How to use it best

Section 1: Optimal number of exercises

PwC data shows the more exercises a student completes the higher their average score (Figure 7), which is true for students of all ages and abilities.

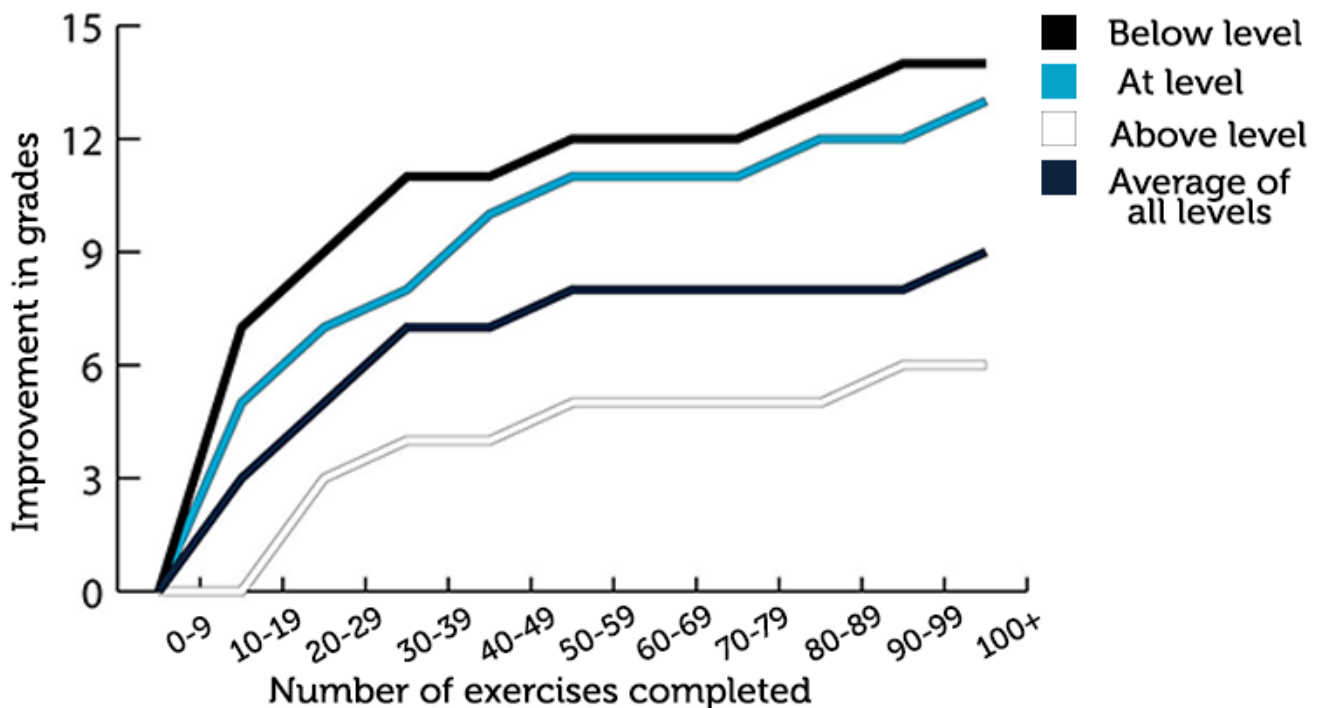


Figure 7: Score change by exercise level

PwC data was able to identify (70-100) as the optimal number of exercises for students of all ages and abilities to complete. This is roughly (7-10) exercises a week, which translates to just half an hour of class time. PwC was able to prove this is all the time required in a teacher's week to unlock the learning benefits of LiteracyPlanet.

Section 2: Optimal number of subjects

PwC also made interesting findings about the impact subject choice could have on student score. PwC found the more subjects a student participates in, the higher their literacy grade (Figure 8). Noticeable improvements are seen in students who add just one different LiteracyPlanet subject added to their work.

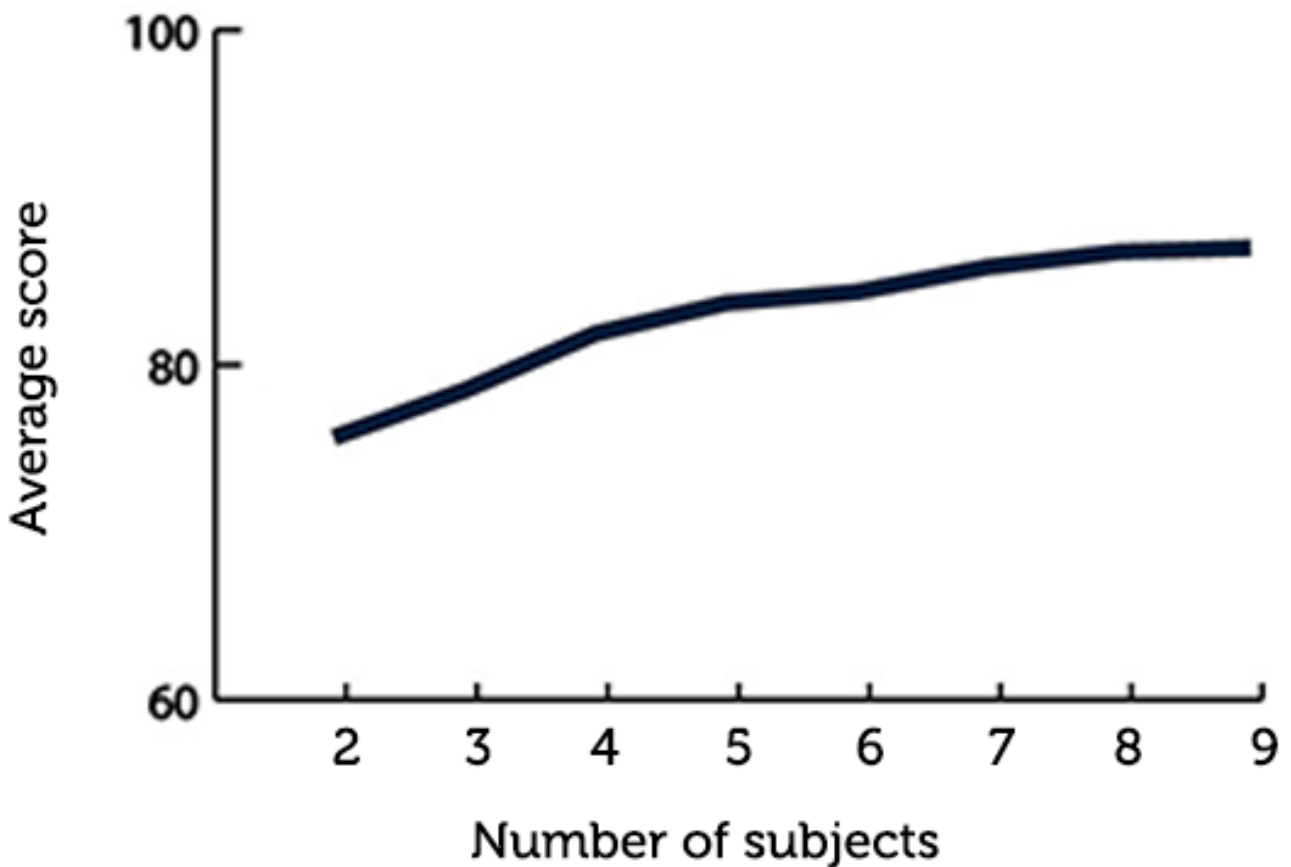


Figure 8: Average score and usage by number of subjects

PwC was also able to provide information on how the optimal number of subjects varies between year levels. PwC found younger years improve most when taking three to four subjects, while Year 3, 4, 5 and 6 improve when taking three subjects to eight subjects. Older year levels (7-9) improve most when taking five subjects.

Section 3: Subject combinations

PwC also made some interesting findings regarding subject combinations and how variances here can impact a student's average score (Table 10). Slight changes to subject assignment can lead to noticeable improvements in scores.

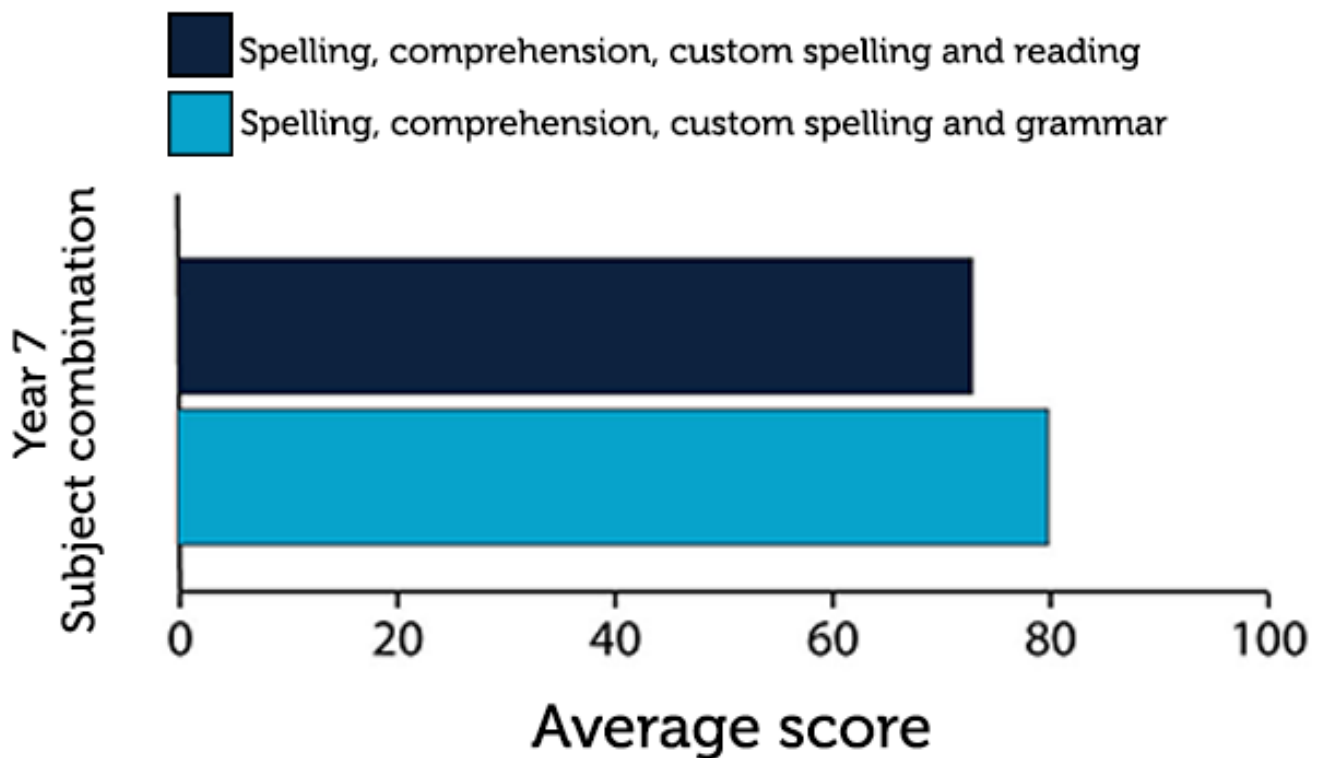


Figure 9: Year 7 Average score by subject combination

For instance, students in Year 7 taking exercises from subjects that include spelling, comprehension, custom spelling and reading achieved an average score of 73%. But students in Year 7 taking exercises from subjects that include spelling, comprehension, custom spelling and grammar achieved an average score of 80%. Simply by adding grammar-based exercises to the mix, teachers were able to improve their student's literacy outcomes.

Section 4: Task balance

PwC also made some interesting findings regarding students who were completing tasks that were preassigned by their teachers compared to tasks they were selecting independently. Students who complete assigned tasks are generally completing a larger variety of exercises, whilst users who complete free learning tasks usually take easier tasks that they already understand.

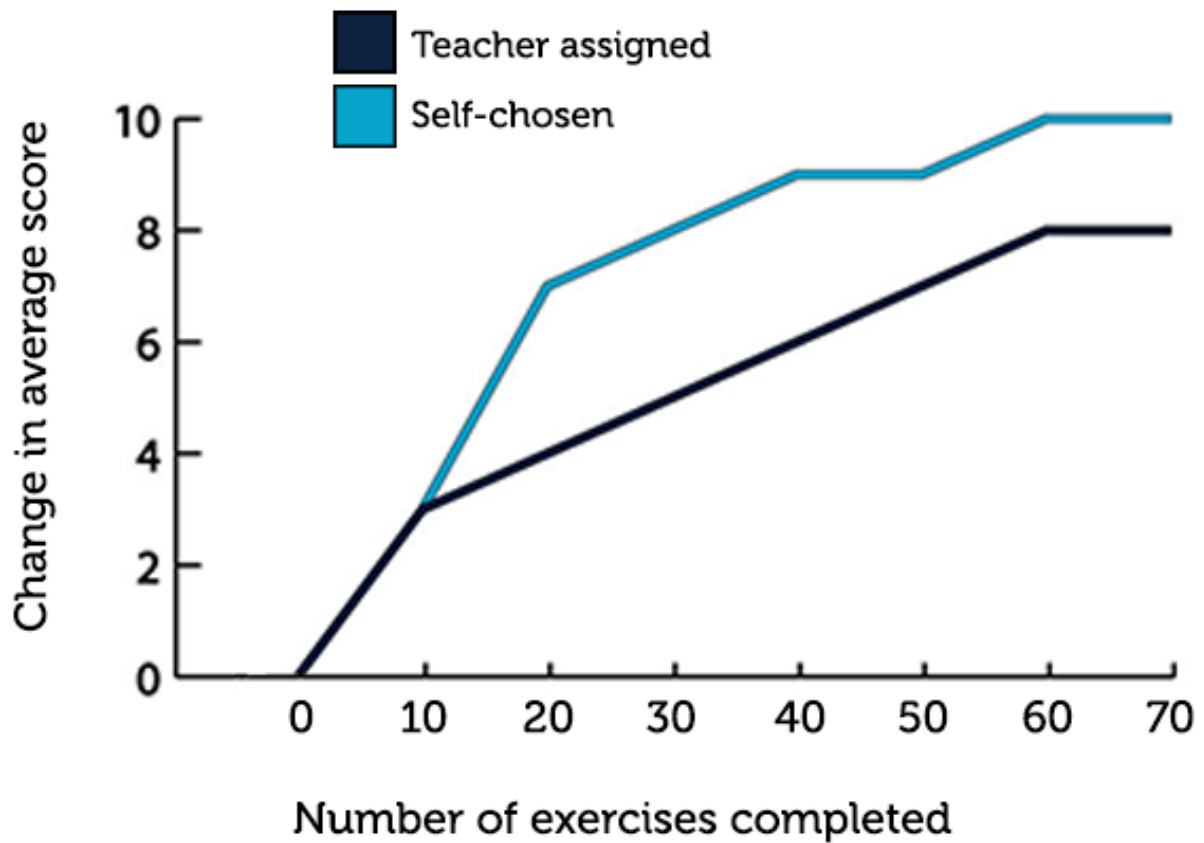


Figure 10: Teacher assigned vs self-chosen tasks

Students who are completing self-chosen tasks are generally completing easier exercises on topics they already understand, while teachers tend to assign more challenging exercises. From this, we can discern an improvement in score in line with teacher assigned tasks (Figure 10) is representative of an improvement in general literacy.

Conclusion

PricewaterhouseCoopers (PwC) has proven LiteracyPlanet's brand of evidence-based, curriculum-aligned content and cutting edge digital technology is an effective way to improve literacy outcomes for students of all ages and abilities.

PwC analysis showed LiteracyPlanet is a widely used program, with 380,000 students across 161 countries engaged. Spelling and comprehension the most popular subjects and most students completing 150 exercises or less.

PwC showed LiteracyPlanet can build a strong foundation in literacy for students of all ages and levels with the completion of just 30 exercises. PwC also revealed how something as simple as assigning more LiteracyPlanet exercises can push students ahead of the pack, and how effective LiteracyPlanet's gamified style of learning can be for students in need of intervention.

PwC was also able to provide a series of 'best-practice' guidelines to show teachers how to unlock the full learning benefits of the program. PwC identified 70-100 as the optimal number of exercises to assign (roughly half an hour of class time a week), identified the optimal number of subjects for each year level, the optimal subject combinations and the best way to strike a balance between self-chosen and teacher assigned tasks.

PwC's analysis doesn't just show how effective LiteracyPlanet already is. It provides insight into the crucial role this engaging, gamified style of learning is going to play in educating children in Australia and all around the world in the future.

About LiteracyPlanet

LiteracyPlanet is an education program designed to provide anywhere, anytime literacy-based learning for students. As learning in the classroom at schools around the world digitises, LiteracyPlanet has established itself as an industry leader, supplying teachers with a digital resource that combines best practice English literacy education principles with gamified dynamics in a manner that's engaging, enjoyable and most importantly, effective.

With customers in over 50 countries around the world, aligned to 61 curriculums including US, UK, Australia, India and New Zealand.

To learn more about LiteracyPlanet visit <https://www.literacyplanet.com/>

