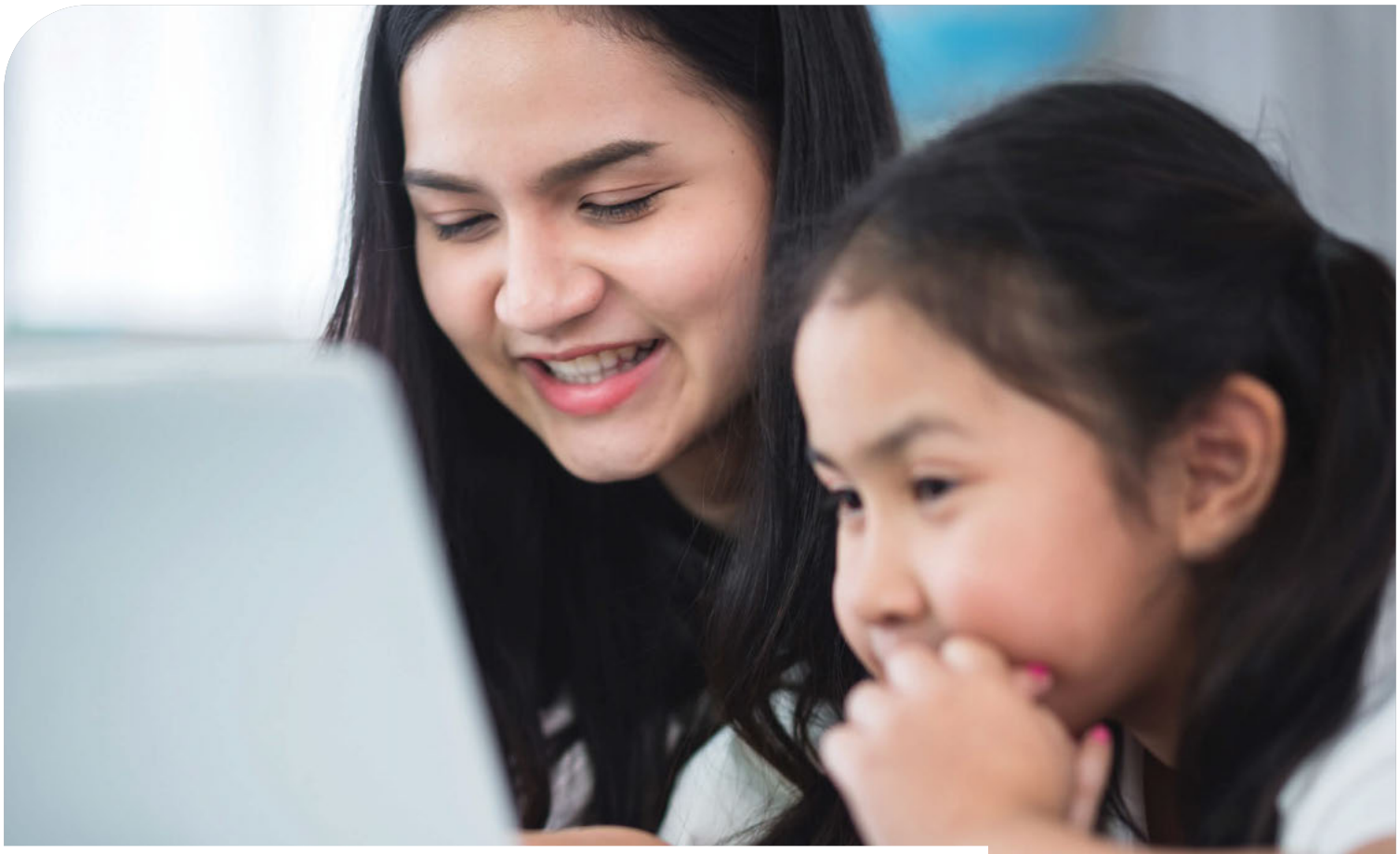


IMPROVING YOUNG AUSTRALIANS' LITERACY AND NUMERACY:

The *Catch-Up Learning* program

THE SMITH FAMILY
RESEARCH REPORT | JULY 2021

The Smith Family
everyone's family

EXECUTIVE SUMMARY

Research shows a clear and persistent relationship in Australia between young people's **socioeconomic background** and the **educational** and post-school **outcomes** they achieve. The **COVID-19** pandemic led to remote learning for many students and significant concerns of the impact of this on educational outcomes, particularly for students such as those from lower socioeconomic backgrounds.

In response, The Smith Family piloted *Catch-Up Learning*, an **online tutoring** program, with qualified teachers providing one-on-one sessions in literacy and numeracy to financially disadvantaged students on The Smith Family's *Learning for Life* program. The tutoring occurred in the **student's home**.

STRONG PROGRAM PARTICIPATION

Eighty one students across Years 4, 5, 7 and 8 completed the program, including one in five from Aboriginal and Torres Strait Islander backgrounds and two in five with a health or disability issue. Program participation and commitment to learning was strong, with 60 percent of students attending, on average, more than two one-hour sessions a week for 20 weeks. Pre-program assessments clearly showed the recruited students were behind their peers, particularly in numeracy, where students were on average three years behind their Year level.

RESULTS FOR LITERACY

By the end of the program, **seven in 10** (72%) students achieved **higher than expected progress** in literacy, and six in 10 (59%) had attained literacy levels equivalent to, or stronger, than their **Year level peers**.

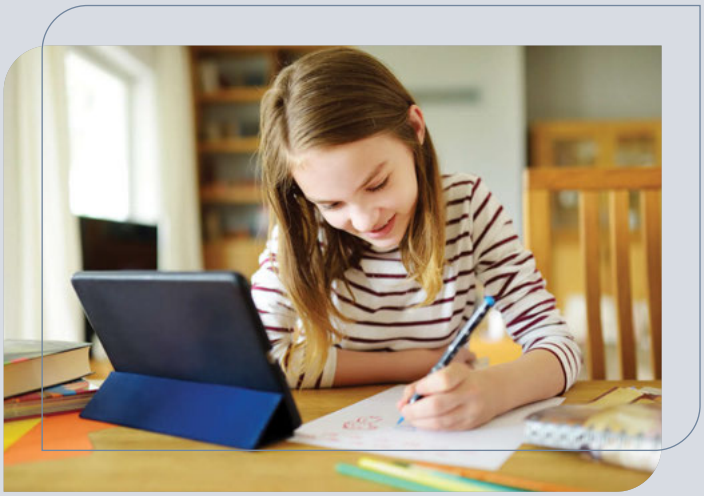
RESULTS FOR NUMERACY

Results for numeracy were more modest, but they are likely to be conservative, given some challenges with the assessment tool used. At the end of the program, 60 percent of students had improved their numeracy to at least the level of progress expected, with **just under half** (46%) making **higher than expected progress**.

OVERALL FINDINGS

The *Catch-Up Learning* program was a small pilot, but there is **very promising evidence** of its capacity to **engage** students and support **greater than expected gains** in literacy and numeracy for **disadvantaged students** who are struggling in these areas. It appears to offer particular value for students who may have previously **struggled to attend school** for a range of reasons.

Two in five students made above expected progress in both literacy and numeracy. **Eighty six percent** of students showed **above expected progress** in either **literacy** or **numeracy**.



The program also contributed to participants' increased **love of learning** and confidence, which are contributors to academic achievement.

ENABLERS AND AREAS FOR IMPROVEMENT

The factors contributing to the program's outcomes included:

- Project partners with **complementary expertise** and a shared commitment to addressing students' achievement gaps and to working together to support continuous learning
- **Qualified and experienced teachers** who were matched to students and provided one-on-one tutoring
- **Online** delivery mode and assessment tools
- The tutoring taking place at **home** and the engagement of **primary carers**
- The provision of **technology** and ongoing support to enable families to participate.

A few small modifications to the program might lead to stronger student progress. These include:

- Finding solutions to the **technology challenges** experienced by students and tutors
- Providing **pre-program training** to tutors
- Seeking a **numeracy assessment** which has greater validity for the student cohort
- Consideration being given to the **intensity** and **duration** of the program.

Background and Context

EDUCATIONAL OUTCOMES AND SOCIOECONOMIC BACKGROUND

Research shows a clear and persistent relationship in Australia, between socioeconomic background and the educational outcomes of young people at all stages (Lamb et al 2020). This includes performance on the National Assessment Program Literacy and Numeracy (NAPLAN), Year 12 completion and post-school engagement in employment, education and training.

For example:

- **Achievement above the national minimum standard in numeracy**
  59.7 percent of Year 5 students whose parents have not completed Year 12, compared to 94.4 percent of students whose parents have completed a Bachelor degree or higher qualification (ACARA 2019)
- **Year 12 or equivalent completion by age 19**
  66.8 percent of those from the lowest socioeconomic backgrounds, compared to 91.8 percent of those from the highest socioeconomic backgrounds (Lamb, Huo et al 2020)
- **Engagement in full-time employment, education or training at age 24**
  50.8 percent of those from the lowest socioeconomic backgrounds, compared to 82.0 percent of those from the highest socioeconomic backgrounds (Lamb, Huo et al 2020).

POTENTIAL IMPACT OF COVID-19

The onset of the COVID-19 pandemic led to many Australian school students moving to remote learning for some of 2020. This resulted in significant concerns about the potential impact on educational outcomes. Research predicted remote learning would particularly impact students who live in poverty or are from low socioeconomic backgrounds, those with a disability or additional learning needs, those from Aboriginal and Torres Strait Islander backgrounds and students in rural or remote parts of Australia (Lamb, Maire et al 2020; Sonnemann & Goss 2020).

The reasons for the likely impact of remote learning on these groups of students included:

- **Material divide:** Families' more limited access to basic resources needed to support home learning (for example desks, a quiet place to study, books etc)
- **Digital divide:** Families' gaps in Information and Communications Technology (ICT) resources and knowhow (for example computer, software, internet connection, limited ICT skills etc)
- **Students' skills, dispositions and learning needs:** Remote learning requires high levels of motivation, perseverance and strong language skills, which not all students possess. Supports available at school, such as personalised learning plans for children with a disability, may be more difficult to provide in remote learning.
- **Parental support:** Some primary carers not being well prepared or able to cope with remote learning (for example not feeling confident to support their child's learning) (CIRES 2020).

THE *LEARNING FOR LIFE* PROGRAM

The Smith Family's long-term educational scholarship program, *Learning for Life,* currently supports almost 58,000 Australian children and young people experiencing financial disadvantage. Students can participate on the program from the first formal year of school through to the completion of tertiary studies. The program aims to strengthen the educational outcomes of students by providing:

- A modest biannual financial scholarship to assist with the costs of education
- Support from a community-based worker (a Family Partnership Coordinator)
- Access to other educational support programs.[1]

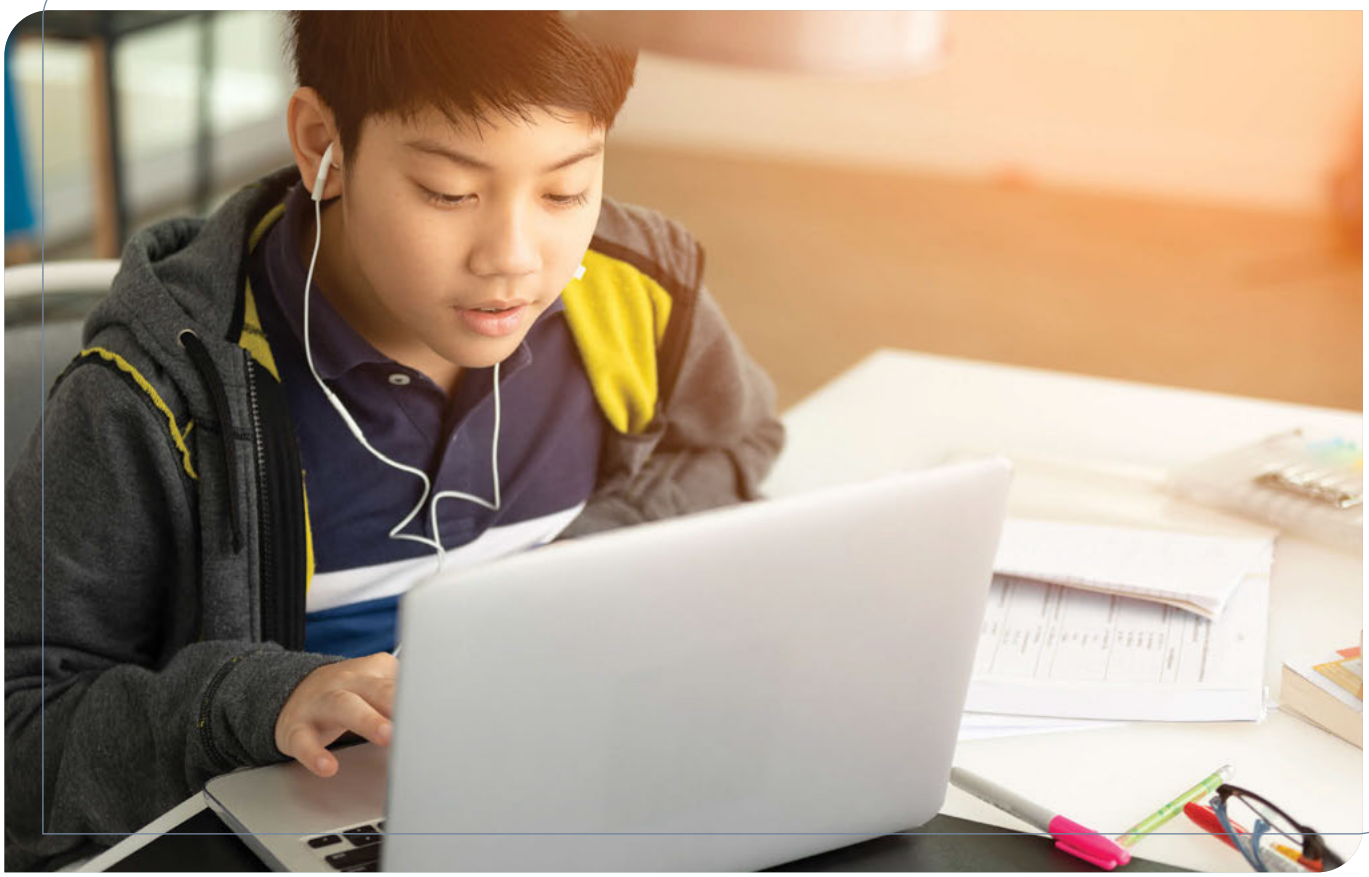
In response to the potential impact of remote learning during COVID-19, The Smith Family provided a range of additional supports to some *Learning for Life* students and their families. This included more frequent contact by Family Partnership Coordinators, provision of Digital Access Packs and the piloting of *Catch-Up Learning*, an online tutoring program. While COVID-19 was a prompt for the program, it was anticipated that if effective, it could potentially play an ongoing role in seeking to reduce the gap in educational achievement experienced by many students on *Learning for Life,* which pre-dated COVID.

RESEARCH UNDERPINNING THE *CATCH-UP LEARNING* PROGRAM

The design of *Catch-Up Learning* was informed by analysis from the UK's Education Endowment Foundation (EEF 2018). This indicated there was strong evidence that one-on-one tutoring with a trained teacher is very effective in helping learners catch up, particularly for younger learners who are behind their peers in primary school,[2] and for subjects like reading and mathematics. The EEF noted the effects of one-on-one tutoring for pupils from disadvantaged backgrounds tend to be particularly positive.

1 Further information on the *Learning for Life* program is available at www.thesmithfamily.com.au

2 There are fewer studies available on the impact of tutoring programs at the secondary level.



THE *CATCH-UP LEARNING* PROGRAM

The goal of the *Catch-Up Learning* program is to strengthen the literacy and numeracy skills of *Learning for Life* students who are struggling in these areas. The program design was informed by the available evidence regarding tutoring programs with core elements including:

- **Qualified and experienced teachers** providing **one-on-one lessons** in literacy and numeracy that are tailored to the skill level of students
- Students participating in **three one-hour tutoring sessions a week** for **20 weeks** over six months (a total of 60 sessions) with a two-week break over the summer school holidays
  - Primary school students had one tutor for all sessions, with literacy and numeracy tutoring provided in each session
  - Secondary school students had a 10-week session (30 lessons) with an English teacher and a 10-week session with a maths teacher.

The program design was also influenced by the evidence of the importance of the home learning environment and parental engagement for children's learning outcomes, as well as the ongoing impact of COVID-19 on remote learning. Other core elements included:

- Students participating from their **home**, **outside of school hours** with support from a **primary carer**
- All sessions being **online** using video-conferencing and existing digital learning tools that supported tutors' ongoing monitoring of student progress
- **Technology** provided to families requiring it (including hardware and/or internet access plans)[3]
- **Practical support** being available to families and tutors throughout the program through a Smith Family Program Coordinator.

Catch-Up Learning was run as a small pilot between November 2020 and May 2021. Given the impact of COVID and the December/January summer holidays, the time between program design and the commencement of the program was very short, at only four weeks.

PARTNERSHIPS

The Smith Family partnered with **ClassCover**[4] to recruit qualified teachers to the pilot who had skills and experience working with students who are not meeting Year level curriculum standards in English and maths. ClassCover recruited 60 tutors and matched them to students on the *Learning for Life* program.

3 Laptops were provided to 10 families, four before the program started and six during the program when it became apparent that their technology wasn't sufficient to meet the needs of the program. Three internet packages were also provided.

4 ClassCover provides registered relief teachers to schools across Australia and implements an online tutoring program.

ClassCover also provided tutors with access to online learning and assessment tools, as well as administrative and pedagogical support. An online forum was established to create a peer-support environment for tutors to share experiences and discuss issues.

Funding for the pilot was provided by the **Origin Energy Foundation**, a long-term philanthropic partner of The Smith Family.

EVALUATION OF *CATCH-UP LEARNING*

Given the pilot nature of the *Catch-Up Learning* program, an evaluation was undertaken with the aims of:

- Describing **who participated** in the pilot
- Assessing the program's impact on students' **engagement** and disposition towards learning
- Assessing the extent to which participants' literacy and numeracy **skills improved** over the 20-week program
- Identifying the factors which contributed to **improvements** and areas that could be further **enhanced**.

A range of data was collected across the 20 weeks of the program to support the evaluation:

- Participants' **program attendance** rates (that is, the proportion of the 60 sessions attended)
- Pre and post-program literacy and numeracy **assessments**, using existing online adaptive[5] tools
- **Tutors'** weekly and final session written **observations** of students' engagement and progress
- **Tutor survey** at the end of the pilot, exploring students' attendance, progress, commitment to and engagement in learning, parental support and technology issues
- **Interviews** with a small number of parents/carers, tutors and key project personnel.

> The goal of the *Catch-Up Learning* program is to strengthen the literacy and numeracy skills of *Learning for Life* students, who are struggling in these areas.

STUDENTS RECRUITED TO THE PILOT

Eighty one *Learning for Life* students recruited to the pilot completed a pre and post-program assessment in either literacy, numeracy or both. The criteria for recruitment was that the student:

- Was in **Years 4 or 5** (primary school) or in **Years 7 or 8** (high school) in 2020
- **Struggled in English and maths** in 2019, achieving a D in both subjects[6]
- Had **attended school** at a rate of 50 percent or above in 2019.

These 81 students had the following characteristics:

- **Gender**: 56 percent female and 44 percent male
- **Indigeneity**: One in five (21%) were of Aboriginal and Torres Strait Islander backgrounds
- **Health and disability issues**: Almost two in five (38%) had a health or disability issue
- **Year level***:* Around 30 percent of students were in each of Years 4, 5 and 7, with seven percent in Year 8
- **2019 school attendance rates:** 64 percent attended school at 90 percent or above, around a quarter (23%) attended at between 80 and 89.9 percent, and 11 percent attended at between 70 and 79.9 percent. One student had an attendance rate of between 60 and 69.9 percent.

PROGRAM ATTENDANCE RATES

For these 81 students:

- The **average program attendance** rate was **73 percent** (or 44 out of 60 sessions)
    - One in five students (22%) attended at above 90 percent and two in five (41%) attended at 81 percent or above
    - Around a quarter (27%) of students attended less than 60 percent of sessions.
- Program **attendance did not vary** by gender, Indigeneity, Year level, health or disability issues or whether participants had technology challenges during the program
- Across all **subgroups** of participants (gender, Indigeneity, Year level and whether or not students had health or disability issues), students attended at least **two out of three** sessions per week for 20 weeks.

Tutors reported that students whose participation in the program had been *significantly influenced* by their primary carer, attended on average 79 percent of all sessions, while students whose participation had been *moderately influenced* by their primary carer, attended on average 64 percent of sessions.

5 Adaptive tests are tailored to the students' skills level. Students with weaker skills can be tested with material at a lower level than that determined by their age, and students with stronger skills can be tested with material that reflects their ability.

6 In Australian schools, teacher assessments of achievement against national curriculum standards for English and Maths are reported on a scale from A to E, where A = Excellent achievement, B = Good achievement, C = Satisfactory achievement, D = Partial achievement and E = Minimal achievement.

PRE-PROGRAM LITERACY ASSESSMENTS

Sixty nine *Catch-Up Learning* participants were assessed prior to the program starting and at its conclusion, using the New Group Reading Test (NGRT).[7] Students' scores are categorised against their expected Year level and described as:

- **Above average** – thorough knowledge and high level of competence
- **Average high** – sound knowledge and satisfactory competence
- **Average low** – basic knowledge and competence
- **Below average** – at or below elementary knowledge and limited competence.

At the start of *Catch-Up Learning*, no students were assessed as being in the *above average* category, 16 percent were in the *average high* category, 35 percent in the *average low* and 49 percent in the *below average*. This assessment indicates that *Catch-Up Learning* had recruited students who needed literacy support.

Some subgroups of students had higher proportions of *below average* students:

- **Gender:** three in five (59%) female students compared to two in five (37%) male students were below average
- **Indigeneity:** two in three (64%) Aboriginal and Torres Strait Islander students compared to 45 percent of non-Indigenous students
- **Health and disability:** two in three (65%) students with a health and disability issue compared to one in three (35%) without these issues
- **Year level:** 45 percent of Year 4 students, 50 percent of Year 5 students, 58 percent of Year 7 students and 25 percent of Year 8 students.

POST-PROGRAM LITERACY ASSESSMENTS

The post-program NGRT scores give an indication of progress or skills growth that takes account of students' initial skill levels and the length of time *Catch-Up Learning* ran, using five **progress categories:**

- **Much higher** than expected progress
- **Higher** than expected progress
- **Expected** progress
- **Lower than expected** progress (some progress but not to the level expected)
- **Much lower than expected** progress.

Ninety six percent of *Catch-Up Learning* participants improved their skills to at least the level of progress expected. **Seventy two** percent improved their skills **beyond** what would be expected over a six-month period, including 52 percent who made *much higher than expected* progress. Only three students (4%) showed *lower than expected* progress. Of these three students, one had a significant disability, learning difficulties and technology issues. The tutors of the other two students indicated progress had been made in some literacy areas, but not all. Figure 1 shows students' literacy skills at the end of the program.

Figure 1: Students' literacy skills at the end of the program

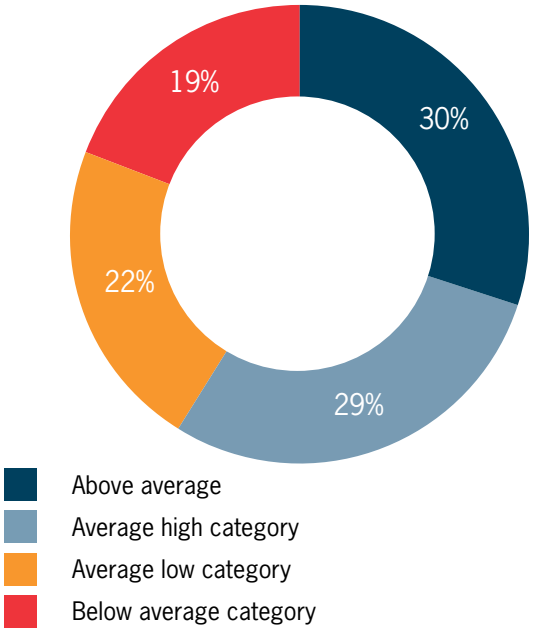


Table 1 summarises the pre and post-program literacy assessments by category against students' expected Year level.

Table 1: Pre and post-program assessments in literacy by category

Literacy category	Pre-program assessment %	Post-program assessment %
Above average	0	30
Average high	16	29
Average low	35	22
Below average	49	19

All of the students who were in the *average low* category at the end of the program and more than three in four of those who were in the *below average* category, had made *expected* or *higher than expected* progress over the six months of *Catch-Up Learning*.

Improvements in literacy did not vary by **Indigeneity** or **Year** level. Seventy one percent of Aboriginal and Torres Strait Islander students and 73 percent of non-Indigenous students made *above*

7 This is a 30 minute on-line adaptive assessment of a range of reading and comprehension skills for students aged 6 to 16.

expected gains. Seventy-four percent of students in Years 4 or 5 and 70 percent of students in Years 7 or 8 made *above expected* gains.

Students without **health and disability** issues were slightly more likely to make *above expected* gains than students with health or disability issues (81% and 70%, respectively).

Boys were slightly more likely than girls to make significant gains, with 78 percent of the former and 68 percent of the latter making *higher* or *much higher than expected* progress. Among students who had no **technology challenges**, 84 percent made *higher than expected* gains. This compares to 64 percent for those students who had technology challenges.

There was no clear relationship between participants' **program attendance** rate and their progress. This may be due to the program's high average attendance rate, of 73 percent. However, students whose **school attendance** in 2019 was between 60 percent and 89 percent, were more likely than students with attendance above 90 percent, to make *higher than expected* progress (83% and 67% respectively). This suggests the program offered particular value for students who had **struggled to attend school** at very high rates.

PRE-PROGRAM NUMERACY ASSESSMENTS

The numeracy skills of 80 *Catch-Up Learning* participants were assessed prior to the program starting and at its conclusion.

The Mathspace Waypoints assessment, which covers the national curriculum[8] across Years 3 to 10, was initially chosen for this purpose. Despite all participants being in Year 4 or above at the start of the program, tutors assessed the numeracy skills of 17 students to be below that measurable by Waypoints. These students were assessed using Mathseeds, which is suitable for Kindergarten to Year 3.

Pre-program assessments of *Catch-Up Learning* participants using Waypoints or Mathseeds were categorised into four groups, reflecting students' distance from their expected Year level:

- **Low gap** (0 to 0.9 years behind)
- **Medium gap** (1 to 1.9 years behind)
- **Large gap** (2 to 3.9 years behind)
- **Very large gap** (4 years or more behind).

These pre-program assessments show:

- Students were on average **three years** behind their expected Year level
- No students were in the *low* gap category
- Amongst the various subgroups of students, **Year level** was the characteristic which showed the greatest range in the number of years students were behind. Students in Year 4 were, on average, **2.6 years** behind their expected Year level and students in Year 8 were, on average, **4.8 years** behind.

8 Across the three areas of numbers and algebra, statistics and probabilities, and geometry.

Given the Year level students were in, the average gap of three years behind was larger than anticipated, as was the fact that the skills of 17 students were assessed as being below Year 3. The assessments indicate that *Catch-Up Learning* had recruited students who particularly **needed numeracy support**.

POST-PROGRAM NUMERACY ASSESSMENTS

The same tools were used to assess participants' numeracy skills at the end of the *Catch-Up Learning* program. However, in the survey of tutors at the program's conclusion, a number made comments about the Mathspace Waypoints tool. Some indicated it was too difficult for their students and some felt it did not fully reflect what had been covered in the tutoring sessions. Given this, results regarding the effectiveness of *Catch-Up Learning* at improving numeracy skills are likely to be **conservative**.

At the end of the program:

- **60 percent** of students improved their skills to at least the level of progress expected
- Close to **half of students** (46%) made *higher than expected* progress.
- 40 percent of students made less progress than expected.

Progress in numeracy did not vary by **gender** with around six in ten females and males making *expected* or *higher than expected* progress.

More than half (53%) of **Aboriginal and Torres Strait Islander** participants and around six in 10 (62%) non-Aboriginal and Torres Strait Islander participants made *expected* or *higher than expected* progress.

Similar proportions of students in each **Year level** (around 47 percent) made *higher than expected progress* while 48 percent of students in Years 7 and 8 made *lower than expected* progress, compared to 34 percent of students in Years 4 and 5.

Students without a **health or disability** issue were more likely than students with these issues to make *higher than expected* progress (47% and 30% respectively).

More than half (53%) of Aboriginal and Torres Strait Islander participants and around six in 10 (62%) non-Aboriginal and Torres Strait Islander participants made *expected* or *higher than expected* progress in numeracy.

As with the literacy results, students with **school attendance** in 2019 of below 90 percent, were more likely than those with attendance above 90 percent, to make *expected* or *higher than expected* progress (69% compared to 55%). *Catch-Up Learning* appears to offer particular value for students who may have **struggled to attend school** for a range of reasons.

A higher proportion of those who were **furthest behind** at the start of the program (that is four or more years behind), compared to those who were one to four years behind, made *expected* or *higher than expected* progress (74% compared to around 56%).

Unlike the literacy results, **program attendance** did influence progress in numeracy. Fifty four percent of students who attended 80 percent or more of the program sessions made *higher than expected* progress, compared to 40 percent of students whose attendance was less than 80 percent.

Seventy percent of students whose **primary carer** had a *significant influence* on their attendance in the *Catch-Up Learning* program made *expected* or *higher than expected* progress, compared to 50 percent of students whose primary carer had a *moderate influence* on attendance.

Unsurprisingly, given the extent to which students were behind at the commencement of the program, 70 percent of students were still two to four years behind at the conclusion of the program. A further 18 percent were four or more years behind.

STUDENTS' COMMITMENT, LOVE OF LEARNING AND CONFIDENCE

In addition to the formal post-program assessment of students' literacy and numeracy, a survey of tutors at the end of the program explored students' commitment to learning when participating in *Catch-Up Learning*, their love of learning and their confidence.

Tutors indicated that **80 percent** of students demonstrated a *good* (35%) or *very good* (45%) **commitment to learning** during the program. In addition, six in 10 students (61%) had an **increased love of learning**. These assessments were reinforced in the tutors' comments, with many of them also noting students' increased confidence.

For a third of students (35%) their love of learning remained the same during the program, but for some, that was due to a strong level of engagement in their learning before commencing on the program, as well as a strong commitment to the online learning environment.

Liam[9] *expressed how, prior to tutoring, in school he would not pay attention or feel bored. Liam now often comes online and is excited to tell me how well he did in a particular lesson during the day…His attitude towards learning has improved so much as he learnt more during the sessions and became confident in school as a result.* [Tutor, Year 5 student]

It was a pleasure tutoring Zara and it was clear that her work ethic came on in leaps and bounds over the course of the program…[it] allowed her to learn useful skills and gain confidence …a win…has been her willingness to get stuck into her work and work through problems. [Tutor, Year 5 student]

I am thrilled with Clara's progress and her dedication to learning. She is really enjoying school this year. [Tutor, Year 4 student]

Madison started the program with a negative attitude towards learning. She had a large amount of learned helplessness and got easily frustrated when she was unable to do things. Over the course of the program we were able to change that to an attitude of "I will try" and a willingness to ask for help when it got too much for her. [Tutor, Year 4 student]

Cooper has been committed from the start, he appeared to enjoy our time online, laughing and chatting. His mum informed me she didn't need to remind him; he was always ready [for our lessons]. [Tutor, Year 7 student]

STUDENTS WHO DID NOT COMPLETE A POST-PROGRAM ASSESSMENT

In addition to the 81 students who completed pre and post-program assessments in literacy or numeracy, 15 students participated in one or more *Catch-Up Learning* sessions but did not complete an assessment at the end of the program. Two of these students participated in the full program but one was inadvertently given an incorrect assessment. The other had a developmental disability which limited the use of the NGRT and Mathseeds assessment tools.

Thirteen of the 15 students formally withdrew from the program or stopped attending sessions. Their reasons for doing this included:

- Four had too many family challenges to continue participating
- Three had technology issues, such as computers not working
- One was not enjoying the sessions
- One felt the sessions were too much on top of school homework.

There are four students whose reasons for withdrawing are unknown.

PROGRAM ENABLERS

A range of data collected for the evaluation identified some of the factors which contributed to the strong outcomes achieved. These are summarised as:

- **Partners** with complementary expertise and shared commitment
- Qualified and experienced **teachers** matched to students and providing **one-on-one** tutoring
- **Online** delivery mode and assessment tools
- **Home** learning environment and **primary carer** engagement
- Provision of **technology** to families.

Partnerships

The three organisations involved in the *Catch-Up Learning* pilot had complementary expertise and a shared commitment to addressing students' achievement gaps. They were also committed to working together in ways which enabled continuous learning, moving quickly from design phase to implementation and to refining the program as required.

- **The Smith Family** – has long-standing trusting relationships with families through the *Learning for Life* program, enabling the rapid identification and recruitment of students needing additional support. The Smith Family also brought understanding of some of the challenges students and families were facing and the types of support they might need to participate in the program.

9 All names of students and primary carers have been changed. No names have been used for tutors.

- **ClassCover** – is a leader in providing education human resources software, and qualified and experienced teachers to thousands of schools across Australia, New Zealand and Singapore. They were able to quickly recruit suitable tutors to the program. ClassCover also brought strong pedagogical and assessment expertise to the pilot and experience with online teaching.
- **Origin Energy Foundation** – is a philanthropic foundation focused on supporting programs that use education to break the cycle of disadvantage and empower young Australians to reach their potential. The Foundation has worked with The Smith Family for around 10 years and they allocated resources to adequately fund the *Catch-Up Learning* pilot.

Qualified tutors, one-on-one lessons

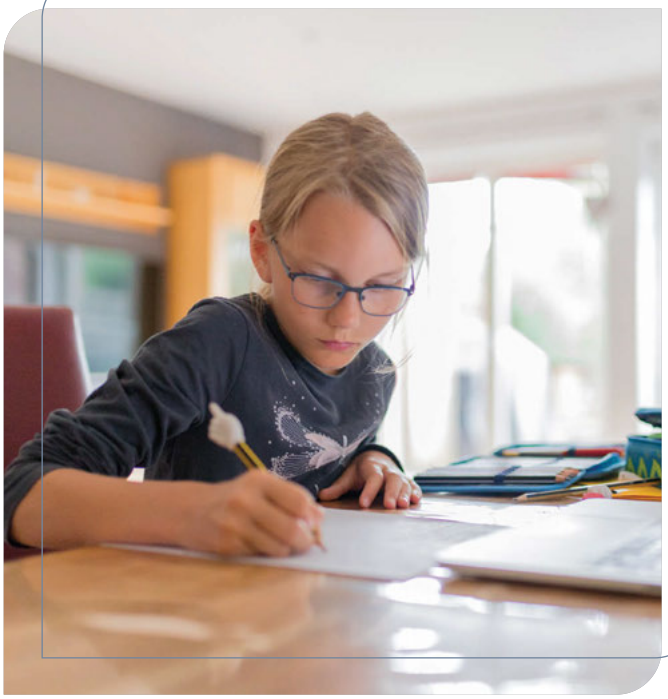
The use of qualified and experienced teachers in one-on-one sessions enabled **tailored** pedagogical approaches to each student's developmental and academic **needs**, as well as the **adaptation** of session content to suit students' interests and style of learning. This was pivotal in developing **rapport** with students, increasing their **engagement** in learning and strengthening their **skills**.

…[you] use your own…experience to guide them in the areas that they like and enjoy…So being one-on-one is the number one reason why it was effective for him, but also the type of teaching…only a one-on-one kind of focus can do that. He'd be missed in a class of students.
[Tutor, Year 5 student]

I was astonished at how quickly Madison made gains in literacy (age 8 to over age 13) – especially in reading and comprehension…with regular shared reading, vocabulary extension, discussion and comprehension strategies, their reading galloped from struggling with basic texts to being able to read nine out of 10 words. [Tutor, Year 4 student]

[the one-on-one tutoring allowed me] to keep stretching him, to keep pushing him further and testing the heights of his ability. Not just to say…this is all we need to do…He asked me one day to do algebra…so I programmed [it] into his lesson…and…he loved it. So he was doing Year 7 algebra, and he was right into it. [Tutor interview, Year 5 student]

She did a couple of things to engage him and [she] knows what he likes and dislikes…and has got him doing learning games, getting him learning, [by] playing a game. He's so eager to win. He's concentrating more…and she did some learning things…to see what he is better at learning with. She goes 'Oh, that's why he acts up. It's not his learning style'. She's been changing the way she teaches to his advantage…She's amazing. [Primary carer, Year 5 student]



…towards the end [of the program, Clara] was like 'I don't want to do it' and within five minutes of the lesson starting, she's forgotten that she didn't want to and was into it… all I can say is, I don't think that's to do with the program, I think that's more to do with the teacher.
[Primary carer, Year 5 student]

We had one little boy, …who would not turn on his screen. Wouldn't have the camera on at all…he had his microphone off [too] and they would talk through the chat function. Now it's all fun. All these weeks later…he's happily doing that now [using the microphone and camera]. I wondered at the beginning [about the one-on-one], but I think now…that it is a great success…[it] just makes a child feel important. And makes the family feel important as well.
[*Catch-Up Learning* Program Coordinator]

The use of qualified and experienced teachers in one-on-one sessions enabled tailored pedagogical approaches to each student's developmental and academic needs.

Online delivery mode and assessment tools

The online delivery of *Catch-Up Learning* enhanced the **reach** of the program, giving access to students who may otherwise have been excluded because of where they lived. It also enabled tutors to be best **matched** to students and made it easier to re-schedule lessons when required because of the complexity of families' lives and tutor availability.

Tutors valued the assessment tools when content was at the appropriate skill level of their students. The tools provided diagnostic information, allowing continual monitoring of student progress and adjustment of lessons, as required.

[if I had to] message [the tutor]…saying 'please understand [we] cannot be having the lessons today because Jade [has had] a bad day at school', she [would] understand. [Primary carer, Year 4 student with mental health issues]

…[the tutor] was really nice. She worked around him. If Samuel was sick, she was mindful. It was comfortable, it was easy…She did pretty well to work within our time. [Primary carer, Year 8 student]

…there are plenty of times that teachers haven't been able to make the session as well. …they can negotiate what times suits [to] makeup lessons. [*Catch-Up Learning* Program Coordinator]

Mathspace, Reading Eggs and Reading Eggspress were excellent learning platforms and I used these to identify areas of learning difficulties, devising additional exercises and tasks to address these. [Tutor, Year 8 student]

At the beginning of the program, Ariana's diagnostic checkpoints assessments indicated some gaps from Year 3, namely in number and algebra, statistics and probability. [At the Year 4 level, there were] gaps in all strands. In the 10 weeks using Mathspace, [my] emphasis was placed on these…[and at the end of the program she] showed proficiency/mastery in all of [these gaps]. [Tutor, Year 7 student]

Home learning environment and primary carer engagement

Tutors indicated that the home learning environment worked well when primary carers were able to create a quiet space for students to work and were supportive without being "over-involved" in sessions. Running *Catch-Up Learning* in the students' homes, meant that primary carers were able to help their child **celebrate** small achievements along the way, reinforcing the **value of learning** and the benefits of the program. It also provided the opportunity for tutors to **pass on skills and strategies** to primary carers for engaging in their child's learning.

[Mum] was very supportive...gave him his afternoon tea, set up the computer on a desk…[would] get it going and say 'hi'. [Tutor, Year 5 student]

If he does anything fantastic, then he wants [mum] to see, so he calls her and she's right there…She's been fabulous…The kind of families that we sometimes [work] with…don't have those strategies and probably haven't had great educational experience themselves, so they're a bit nervous…but I think it was good for her to be there and to see how I managed him and helped him, so hopefully she could get some strategies. [Tutor, Year 5 student with a health and disability issue]

Provision of technology and ongoing support to families

Program participation relied on suitable technology hardware, reliable internet connectivity, speed and bandwidth and the digital literacy skills of the tutor and primary carer. Where all of these aspects existed, they contributed to student retention on the program and the student's engagement in learning.

Braydon is very hands on, very active little guy. Anything that was [a] game…was just perfect for him. It's at his level…Reading Eggs in particular was brilliant…there's instant rewards, short sharp little activities, he can spend his little eggs that he's earned…Yeah, that probably was the best thing. [Tutor, Year 4 student with health and disability issues]

Frequent contact with families by the *Catch-Up Learning* Program Coordinator and the timely resolution of families' barriers to participation, was also a key enabler of the program's success.

PROGRAM CHALLENGES

There were a range of challenges with implementing the *Catch-Up Learning* program which may have impacted the extent to which some students progressed. This is not surprising given the pilot nature of the program, the very short time between program design and implementation (four weeks), the challenges faced by students living in financial disadvantage and the ongoing impact and uncertainty of COVID-19 during the program period.

These challenges can be summarised as:

- **Technology**
- **Complex home environments** and "over-involvement" of a few primary carers
- **Aligning tutoring** to classroom lessons
- Program **duration** and **intensity**
- Tutor **preparedness** and student-tutor matching.

Technology

One of the most prevalent and **substantial challenges** impeding student engagement and progress during *Catch-Up Learning*, was poor internet connectivity. This created communication delays and impeded the functionality of digital learning tools. In some cases, families had a very old laptop or a device without a microphone and/or camera, or tried to use a tablet or phone, neither of which worked well when students were trying to move between multiple online tabs. These challenges occurred, even though efforts had been made prior to the program starting, to ensure families had adequate technology.

Her laptop had no sound and I had to teach her by speaking on her mum's phone while she looked at the computer. It was very difficult. To her credit, Harriet never complained. If she hadn't had internet issues she could have more than likely progressed more...internet issues were daily. [Tutor, Year 4 student]

The internet was a huge barrier. Their ability to use and navigate the site, but generally their access to reliable internet services was incredibly problematic from the very beginning…it hasn't been a successful experience with Jade. I imagine that's reflected in any sort of academic growth. [Tutor, Year 4 student with mental health issues]

Olive's connectivity is awful…which really takes a lot away from our ability to communicate and understand each other…a three or four second delay in connectivity makes it almost impossible to be a reactive teacher. [Tutor, Year 8 student who didn't complete the program]

Complex home environments and "over-involvement" from primary carer

As noted in the section on students who did not complete the program, some had too many family challenges to continue participating. For some students who *did* complete the program, busy and complex home environments sometimes distracted them from their lessons and in some cases tutoring sessions created additional stress in the household (for example where family members were talking to students, or a television or other noise created a distraction).

A few tutors also noted instances of "over-involvement" of primary carers in sessions as did one primary carer.

…very early on, when we did attempt to use the audio, I could never hear what was going on because of the [tv] in the background. And, you could hear conflict in the background when [the student's] asking her dad to turn it down…It got to the point where the frustration in the house for me personally, I found that…it would cause me anxiety that I was involved in something that was clearly causing anxiety and conflict within the house. [Tutor, Year 5 student]

[my presence] wasn't [helpful] as such because I would get quite frustrated…because he would say 'what's the answer to this question, mum' and I'm like 'Come on! You know this'. I think that annoyed him…and that maybe me being there was a bit of a problem…But, from my point of view, I'm like 'He's so behind'. He's in Year 5…He's going to just be lost when he hits high school…and [I'm] 'Ugh' every five seconds because he's not getting the [answer to the question] when it's so obvious. [Primary carer, Year 5 student]

One of the most prevalent and substantial challenges impeding student engagement and progress during *Catch-Up Learning*, was poor internet connectivity.

Aligning tutoring to classroom lessons

Evidence from the Education Endowment Foundation's review of one-one-tutoring (EEF 2018) suggests that tutoring should be additional to, but explicitly linked with, normal classroom teaching. Ideally, classroom teachers and tutors would be connected, however given *Catch-Up Learning* was designed and implemented towards the end of the school year, this was not a component of the initial design.

A number of *Catch-Up Learning* tutors saw benefit in being able to align tutoring sessions more closely with classroom lessons and/or being able to discuss their student's learning difficulties with a classroom teacher. Some tutors were able to talk to these teachers, while others tried but were unsuccessful. This potentially hindered students' academic progress as tutors didn't have access to information that may have helped better target their approach.

I haven't had any contact with the teachers. I did try… but haven't had any joy with that. Some people have, but I haven't…so that's been really hard – not getting any kind of feedback…It would have been nice to know [if] there [was] something specific that [they] would like me to work on. [Tutor, two Year 4 students]

I'm sure Clara's learning is impacted by a specific learning difficulty – a form of dyslexia? I communicated with her teacher to see if Clara had been assessed and to get an idea of her [classroom] program so that I could support Clara more, but didn't hear back. [Tutor, Year 4 student]

I feel Braydon has a poor memory, both working and visual memory which is impacting his ability to recall rules and complete concurrent tasks. He is also very impulsive and very quick to become angry and frustrated. It is very difficult to assess Braydon as he has huge test anxiety and it is hard to know if he is demonstrating his true ability…I haven't had any contact with the teachers. I did try and mum has said she's given my details to the teachers, last year and this year, but I haven't had any joy with that. [Tutor, two Year 4 students, including one with health and disability issues]

A number of *Catch-Up Learning* tutors saw benefit in being able to align tutoring sessions more closely with classroom lessons.

Program duration and intensity

Given the anticipated deep and negative impact of COVID-19 on financially disadvantaged students, the impending long summer holiday break and little or no evidence from similar online tutoring programs undertaken in the home, *Catch-Up Learning* was designed as a quite intensive program. Sessions were three times a week for an hour each over 20 weeks.

The tutors and primary carers who were interviewed for the evaluation, as well as some of the final program comments from tutors, indicated concerns about the program duration, intensity and that it was run over the summer break.

I've had four students...They're exhausted because they're going to school all day and they're struggling at school a lot of them. So they're coming home and having to do a lesson…that is tiring. Tyler, he was the fittest and the most disciplined out of all my students…[and] he was tired. [Tutor, three Year 5 students, including one with developmental delays and one Year 4 student]

Mae really disliked having to do it three nights a week. Long and hard… But [my other student], just found it too many nights. They'd like to see it one or two nights a week and maybe a bit shorter. It's just a bit too long. I think an hour is a long time to tutor somebody. [Tutor, two Year 7 students]

Probably time wise a little bit long for him…sometimes it took five or 10 minutes to kind of get him settled and just talk about his week and that kind of thing. But yeah often it would be that last 15/20 minutes he'd be, "Can I go now? Can I go now?" As I say, Braydon shows up every time with a big smile on his face, he's always happy to see me. But he does tire. And they've had a long day at school. [Tutor, two Year 4 students, including one with health and disability issues]

I would argue now even at these final last weeks, it's gone to the point of not being a positive experience. Like we're all just waiting for it to finish…So 20 weeks, three sessions a week for an hour long… is way too much… [but] if you'd asked me that in week 10, I wouldn't have probably considered it to be a big issue. [Tutor, one Year 4 student with mental health issues, one Year 5 and one Year 7 student]

Tutor preparedness and student-tutor matching

While tutors were all experienced teachers, some had more limited technology skills, experience in online tutoring or in tutoring underperforming students. This may have limited students' progress in some cases.

> *I didn't know how to use Google Docs, I didn't know how to do shared writing. And it took me about five or six weeks to get around to learning that because there were so many other things to learn and it's a shame because it's really helpful when working with the kids. I found that teachers were not trained well enough to get into this quickly…critical is teacher training before the program starts with new teachers who are doing this…*[Tutor, Year 8 student]

> *I haven't done any [tutoring] online. I have got my second degree in learning support, so I have done quite a bit of face to face tutoring… five or six years. But online first time… Yeah it's much easier when they're in the room next to you… I think the technology, that's been a little bit challenging, so I've had to fly by the seat of my pants some days and quickly change.* [Tutor, two Year 4 students, including one with health and disability issues]

Given all students were in primary and secondary school, recruited tutors included primary and secondary school teachers. However the pre-program assessments showed many of the secondary students were at mid or low primary school level. While the secondary school tutors adapted their lessons accordingly, the ClassCover Project Manager noted that recruiting all primary school tutors would have been preferable.

Running *Catch-Up Learning* in the students' homes, meant that primary carers were able to help their child celebrate small achievements along the way, reinforcing the value of learning and the benefits of the program.

Conclusion and Recommendations

Catch-Up Learning was run as a small pilot, but there is very **promising evidence** of its capacity to **engage** students and support **greater than expected gains** in literacy and numeracy of disadvantaged students who are struggling in these areas.

Average **program attendance** was high at 73 percent, with 60 percent of students attending on average at least two sessions a week across 20 weeks, including during the summer holidays. There is also strong evidence of participants' commitment to learning during the program and an increased **love of learning** and confidence, for many.

The results for **literacy** were particularly **strong**, with around three in four students making *higher* or *much higher than expected* progress. Sixty percent of students completed the program having attained literacy levels equivalent to or stronger than their **Year level peers**.

Gains in **numeracy** were not as strong, but results are likely to be **conservative** given some challenges with the numeracy assessment tools. Notwithstanding these challenges, **close to half** of students made **higher than expected** progress in numeracy and a further 14 percent made *expected* progress. Students did not "catch up" to their peers in numeracy, as many did in literacy. This is not unexpected, given on average, students were three years behind in numeracy when they commenced the program.

Eighty six percent of students showed **above expected** progress in either literacy or numeracy.

Impressively, **two in five** students made *above expected* progress in **both literacy and numeracy**.

The evaluation highlighted that a few **small modifications** to the program might substantially improve program implementation, leading to stronger student progress. These include:

- Finding solutions to the **technology challenges** experienced by students and tutors. This may potentially offer the greatest benefit
- Providing **pre-program training** to tutors, which was not possible during the pilot due to timing
- Seeking a **numeracy assessment** which has greater validity for the student cohort
- Providing **more information** to families regarding program requirements and student/family responsibilities
- Consideration being given to the **intensity** and **duration** of the program.

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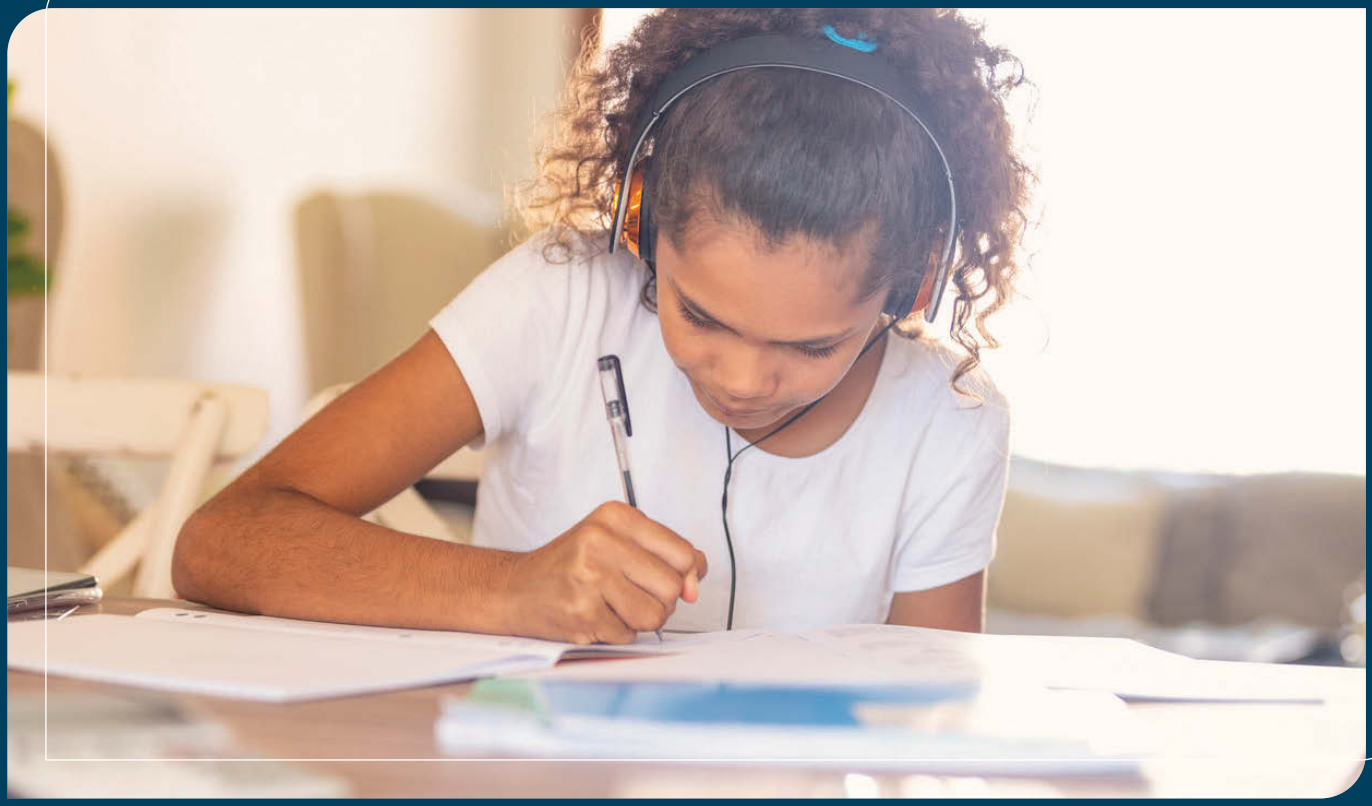
THE *CATCH-UP LEARNING* PROGRAM



Liam's excited to tell me how well he did in a particular lesson…his attitude toward learning has improved so much and he's become confident in school as a result. (Tutor of Liam, a Year 5 student).

Acknowledgments

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