Kate Reid discusses the findings of a seven-year study of the literacy and numeracy achievement of Indigenous students as they progress through primary school.

Most children develop literacy and numeracy skills throughout primary schooling, allowing them to transition successfully to secondary school and to fully access post-school opportunities. For some children, however, the development of literacy and numeracy is more problematic. Indigenous students are over-represented in this group. The reasons for Indigenous educational disadvantage are, however, complex.

Motivated by a desire to develop a data-rich picture of Indigenous primary school experiences, in 2000 ACER commenced the Longitudinal Literacy and Numeracy Study for Indigenous Students (ILLANS). At the time the study was conceived, longitudinal studies on the school achievement of Indigenous students were comparatively rare. ILLANS tracked the development of English literacy and numeracy skills in a group of Indigenous students from school entry through the early years of schooling and beyond. It also collected information on student background and attitudes from a variety of informants, in order to establish a more complete picture of primary school experiences of Indigenous students.

Phase 1 of ILLANS collected data from Indigenous students who commenced their primary education in the year 2000 at 13 schools across Australia. These schools had been nominated by education systems as examples of good practice in education for Indigenous students. The first three years of the study were reported in the monograph Supporting English Literacy and Numeracy Learning for Indigenous Students in the Early Years (Frigo et al., 2003).

Phase 2 of ILLANS followed students through Years 3–6 of primary school, from 2003 to 2006. For Phase 2 of ILLANS, 11 of the original 13 schools from Phase 1 agreed to participate and 14 additional schools across Australia were also recruited. Again, all schools that participated were nominated because they had recognised initiatives and supports for Indigenous students at their school. Across the final four years of the study, 297 Indigenous students and 685 non-Indigenous students from 25 schools completed at least one literacy or numeracy assessment.
Seventy-two Indigenous students completed all four literacy assessments and 70 Indigenous students completed all four numeracy assessments.

The findings of Phase 2 of ILLANS were first presented at the 2011 ACER Research Conference Indigenous Education: Pathways to Success in Darwin and have now been published as ACER Research Monograph 65, Literacy and Numeracy Learning: Lessons from the Longitudinal Literacy and Numeracy Study for Indigenous Students (Purdie et al. 2011).

Underlying the approach of the ILLANS study was recognition that the development of literacy and numeracy skills is fostered by a range of factors – both those that are intrinsic to the child and those that are characteristic of the child’s broader environment, including their school and family. Thus, in addition to standard assessments of literacy and numeracy conducted annually from Years 3 – 6, a range of other qualitative and quantitative data was collected. Teachers rated participating students’ achievement and attentiveness. In the final year of the study, students completed questionnaires that focused on their attitudes towards reading, their perception of their school’s climate, and their evaluation of their own personal achievement in learning. Background variables to the study provided by principals, teachers and Australian Indigenous Education Officers included data on student absenteeism, the main language spoken by students at home, parental occupation and the percentage of Indigenous students attending the school.

ILLANS revealed that on average, in the first year of primary school Indigenous and non-Indigenous students in this study achieve similarly in literacy and numeracy. By the start of Year 3, there was a gap in average achievement between Indigenous students and
their non-Indigenous peers. From Year 3 on, Indigenous students improve at a similar rate to their non-Indigenous peers. However, the gap in average achievement between Indigenous and non-Indigenous students that is evident at the start of Year 3 remains until the end of primary school.

There was, however, enormous variability in literacy and numeracy achievement within as well as between groups. Although the average achievement for Indigenous students overall is lower compared with non-Indigenous students, many Indigenous students achieve at a high level in literacy and numeracy relative to their peers. In some schools, Indigenous students were performing as well as or better than non-Indigenous students.

The student questionnaire revealed that Indigenous students and non-Indigenous students expressed similar opinions about their engagement with and attitudes towards reading. Indigenous students were, however, more likely to agree that they read only if they had to, and to agree that they read only to get the information they need. Non-Indigenous students were also more likely than Indigenous students to agree that they often read in bed. While a higher proportion of Indigenous students reported they did not spend any time each day reading, for those children who did read, the amount of time spent reading was very similar for Indigenous and non-Indigenous students. Indigenous students tended to have fewer books in the home than non-Indigenous students, but they borrowed books from the library as often as non-Indigenous students.

Indigenous and non-Indigenous students provided similar ratings of their schools’ climate and of themselves as learners. Most students evaluated their personal achievement highly, expressing enjoyment in attending school and positive attitudes toward learning. Almost all students rated the quality of the learning environment and their relationships with their teachers positively. School climate was identified as an important predictor of student achievement in both literacy and numeracy, with students who provided favourable ratings of their school’s climate recording higher achievement.

Of the student-level factors, attentiveness, language spoken at home, absenteeism and parental occupation were associated with both literacy and numeracy achievement. Students rated as more attentive by their teachers tended to record higher literacy and numeracy achievement, while students who spoke Standard Australian English at home also tended to achieve more highly in literacy than students who spoke other languages at home. Higher levels of student
Case study visits to five schools participating in Phase 2 of ILLANS, each with unique school and community profiles, enabled exploration of the between-school variability in literacy and numeracy achievement. Each school experienced challenges in attempting to engage both Indigenous and non-Indigenous parents in the life of the school. Notions of a culturally inclusive curriculum varied widely and practices to support the integration of different cultural perspectives were quite different between schools. The case study visits identified a clear need among staff at these schools for ongoing, relevant professional development to empower them to work with Indigenous students more effectively.

Improving educational outcomes for Australian Indigenous students remains at the forefront of government agendas. The six Closing the Gap targets set explicit deadlines for making substantial improvement in education and employment outcomes for Indigenous people, including halving the gap in achievement for Indigenous students in reading, writing and numeracy by 2018. Research initiatives such as ILLANS provide evidence that affirms the importance of identifying those factors that are critical to supporting the literacy and numeracy achievement of Indigenous students. Developing stronger links between schools and Indigenous communities, promoting attendance among Indigenous students, quality teaching, ensuring a good start to schooling, and developing a school culture in which Indigenous students feel included and supported to learn are key aspects of closing the gap in educational achievement for Indigenous students.

ACER Research Monograph 65, Literacy and Numeracy Learning: Lessons from the Longitudinal Literacy and Numeracy Study for Indigenous Students by Nola Purdie, Kate Reid, Tracey Frigo, Alison Stone and Elizabeth Kleinhenz, is available as a free download from <research.acer.edu.au/acer_monographs/>. Print copies can be purchased from ACER Press. Visit <shop.acer.edu.au> or contact customer service on 1800 338 402 or via email on sales@acer.edu.au

1. In this article and in the monograph on which it is based, the term ‘Indigenous’ refers to people who are of Aboriginal and/or Torres Strait Islander descent. We acknowledge the distinctiveness of each student’s cultural group. Overall, our intent has been to use language that accords respect and dignity to Australia’s first people.