

Student Results

Each year data is gathered from *QuickSmart* students and comparison students. Schools submit both pre-test and post-test data for these students. These data enable us to provide each school with a report outlining student progress and growth. An analysis of these test data is presented in a yearly numeracy report.

Analysis of the test data has provided evidence of *QuickSmart* students significantly improving in all four basic arithmetic operations of mathematics: addition, subtraction, multiplication and division. In all operations students' answer times became faster and their accuracy improved.

Teachers also report improved behaviour, attention, confidence and work ethic in other subjects, outside the *QuickSmart* classroom.

In 2020, *QuickSmart* was awarded the *HTB Harris Award for an innovative program that has proven to successfully fulfil an educational need or problem over time* by the Australian College of Educators.

The *QuickSmart* program shows low-achieving middle school students who complete the program consistently achieve up to three years of academic growth over the normal course of the program.

Professor John Pegg said: "The idea of *QuickSmart* is that if at-risk learners are given a genuine second-chance to succeed, the results can be life-changing. Many tens of thousands of learners in Australia can now testify that this statement is true for them."

In 2018, *QuickSmart* was one of only four Education Research Case Studies across Australian Universities to achieve top ratings for all categories in the Engagement and Impact Assessment conducted by the Australian Research Council.

Resources

QuickSmart Numeracy Program User Guide

The *QuickSmart* Numeracy program User Guide provides detailed guidelines for the planning and implementation of the program.

Numeracy Kit

The numeracy resources include flashcard sets, strategy cards, timer and games.

Numeracy Resource & Organisation Folder

The Numeracy Resource & Organisation Folder includes master copies of focus fact sheets, graphing sheets, planning notes, strategy ideas, speed sheets, , teaching resources, problem solving question sets, game instructions and administrative resources required to implement the program.

QuickSmart Portal

All *QuickSmart* instructors obtain a username and password for the members area of our website. This gives schools the ability to download digital versions of the resources and access to additional material and online features such as the Speed sheet generator.

QuickSmart Basic Skills Assessor (QBSA)

The QBSA is an online assessment application accessed via the Portal and is used on a regular basis to monitor the response times and accuracy of *QuickSmart* students.

To read more about the *QuickSmart* program, including evidence, costs, sign-up guides, FAQs, workshop calendar and more, please visit our website: <https://simerr.une.edu.au/quicksmart>



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Numeracy



Numeracy Program Explained

General Information

The *QuickSmart* Numeracy program focuses on basic mathematics content by providing instruction that is planned to meet each individual student's learning needs.

The *QuickSmart* Numeracy program follows a structured lesson sequence based around a "focus set" of number facts. Teaching and learning strategies include explicit strategy instruction, cognitive and meta-cognitive strategies, and deliberate practice.

The program incorporates the online QBSA assessment tool that provides information about each student's accuracy and speed of recall of basic number facts. The information obtained forms the basis for instructional decision-making and individualisation of instruction in the *QuickSmart* program.

Students aim to increase their accuracy and decrease response times as a means of demonstrating increasing automaticity. Assessment of learning and assessment for learning is a continuous cycle in the *QuickSmart* program.

The *QuickSmart* program also emphasises the usefulness and relevance of number facts to regular classroom activities, and develops students' problem-solving capabilities. This feature of the program is important for the transfer of learning to other settings.

QuickSmart Program Structure

QuickSmart students receive three lessons a week, at 30 minutes each. They work in pairs with one instructor outside the normal classroom.

Each student is expected to receive 30 weeks of instruction in *QuickSmart* in order to reach automaticity and strengthen neural pathways.

QuickSmart Training and Workshops

The *QuickSmart* professional development program is aimed at teachers, learning support officers, teacher aides and in smaller schools even parents. In order to instruct students in the *QuickSmart* Numeracy program, educators complete a course of three two-day workshops. During the workshops elements of the program are taught and practised.

Workshop 1 focuses on starting the program and the basic lesson structure of *QuickSmart* Numeracy. During Workshop 2 participants share experiences and the problem-solving component is introduced. At Workshop 3 instructors prepare a case study and are shown how to understand *QuickSmart* evidence and submit their student data for reporting. The workshops run during the first year of *QuickSmart* Numeracy implementation. There is an opportunity to train more staff in later years.

Benefits to Students

Students most likely to succeed and benefit from the *QuickSmart* program are those who:

- experience persistent difficulty in numeracy;
- display a good attitude to learning in small groups; and
- attend school regularly.

Additionally, students may benefit from the *QuickSmart* Numeracy program if they have:

- recorded low performance in national basic skills tests; or
- achieved below average results in school or class administered standardised tests, which require numeracy skills.

Teacher observations are also important for identifying students who may benefit from the *QuickSmart* program. Those students who lack confidence in participating in classroom activities could also improve their performance when given the opportunity to be part of a focused *QuickSmart* program.

Numeracy Lessons

QuickSmart Numeracy Lesson Format (five minutes per component)

1. Focus Facts – Knowledge/Understanding Check
Examine patterns in the number facts, review errors and consolidate understanding.

2. Flash Cards – Automatic Recall of Number Facts
See how many facts each student can get correct in one minute, graph results and discuss improvements and errors.

3. Speed Sheet Challenge
Students work on a Speed Sheet for two minutes, as fast and accurately as possible.

4. QBSA Assessment (one student)
Computer-based online assessment, followed by feedback and goal setting for the next lesson.

5. Independent Work Sheets (one student)
Quick and efficient independent work, followed by feedback.

Swap students between components 4 and 5 and repeat.

6. Games
Mathematics games to help students become faster and more accurate with their number facts. The selection of games includes Three-in-a-row, Same Sums, Double 0, *QuickSmart* Bingo and *QuickSmart* Dominoes.