

# DEPARTMENT OF EMPLOYMENT, EDUCATION AND TRAINING



Office of the Chief Executive

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#### TO WHOM IT MAY CONCERN

# RE: NT LETTER OF SUPPORT - QuickSmart ® Numeracy Intervention Program

In 2005, the Northern Territory Department of Employment, Education and Training (NT DEET) initiated a pilot project to rigorously research and evaluate the impact of the QuickSmert® Numeracy Intervention Program on the numeracy development of targeted Middle Years students. This occurred in 8 schools across a diverse range of contexts. The pilot project was further extended to 12 schools in 2006 and boasts participation from 21 schools in 2007.

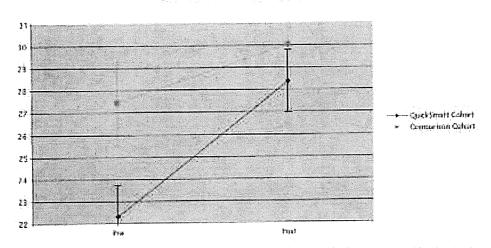
The qualitative information received from the participating schools in 2006 was consistently positive in terms of the perceived impact of the program on achievement of student outcomes in mathematics. All stakeholders, including school management personnel, class teachers, QuickSmart® tutors and QuickSmart® students and parents shared these positive perceptions. There was also consensus that participating students gained greater self-confidence, resulting in improved performances in learning areas other than mathematics.

Quantitative data was obtained through the administration of baseline (pre-intervention) and post-intervention assessment tasks including a test derived from the NT systemic numeracy test. Students who were underachieving in mathematics were chosen for the QuickSmart® cohort while 'average' students were selected for the comparison cohort.

All schools returned data that suggested a positive effect on enhanced numeracy outcomes for QuickSmart ® students. Furthermore, the pooled data from all schools revealed a significantly greater improvement in mathematics outcomes for participating QuickSmart® students compared with students from the comparison cohort. As seen in Graph 1 below, a significant difference in baseline test performance was observed between the two groups. Post intervention, however, the difference in test performance was not significant. This 'narrowing of the gap' supports the positive effect of the QuickSmart ® program.



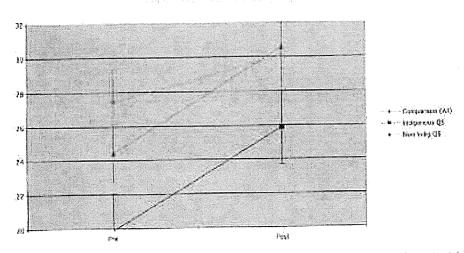
### QS vs Comparison Cohort - Change in Mean Student Test Score (paired data only) (95% Confidence Limits shown)



Graph 1. Comparison of change in Baseline to Post Test score means per cohort (using paired data only)

Of particular interest to the NT are the assessment results for Indigenous students. The relative improvement of the Indigenous QuickSmart ® students is Illustrated in Graph 2. While Indigenous QuickSmart ® students returned a lower mean baseline test score than the non-Indigenous QuickSmart ® students, they improved their post-intervention assessment performance by the same degree, indicating that the program benefited the Indigenous students to the same degree as the non-Indigenous students.

## Change in Mean Scores from Baseline to Post Test (Paired Data Only) (95% Confidence Limits Shown)



Graph 2: Comparison of change in Baseline to Post Tast score means per cohon (using paired dots only)



The level of professional support provided by the University of New England's QuickSmart® team (Professor John Pegg, Dr Lorraine Graham and Ms Jenny Thomas) has contributed to the effective training of QuickSmart® School Coordinators and Tutors. The Initial two-day training workshop, which prepares School Coordinators and Tutors to implement the program, was well received by participants in both 2006 and 2007. Workshop impact and Evaluation Sheets reveal that the majority of participants rate the training received to be very useful, highly relevant and effectively organised as a professional learning activity.

Follow-up workshops conducted in 2005 and 2006 in the middle and at the end of the academic year have also been greatly appreciated by participants. Participants have valued the timely opportunities to; share their successes with each other, engage in trouble-shooting to make their programs more effective and gain authoritative advice to further their understandings of the *QuickSmert* ® research and pedagogy.

The University of New England's QuickSmark® team has also provided efficient and effective support to the NT DEET Numeracy Project Officers who are engaged in the facilitation of the project and organising the professional learning workshops in the NT.

QuickSmart ® is a well-conceived theoretically robust numeracy intervention program and has been backed up by an effective training and professional support program in the NT. It is clearly evident that the QuickSmart® Numeracy intervention program has been very successful in enhancing the teaching and learning of mathematics and improving numeracy outcomes for Middle Years students in the NT QuickSmart® Project.

Yours sincerely

DEBBIE EFTHYMIADES A/DEPUTY CHIEF EXECUTIVE

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