##### Smarter Schools National Partnerships

##### Improving Literacy and Numeracy National Partnership

**Victoria**

##### Submissions to National Evidence Base

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**IMPORTANT NOTE: All fields or questions marked with an asterisk (\*) must be completed or the strategy cannot be submitted for assessment.**

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| Background information | | | | |
| \*Submission Title  Leading Numeracy Professional Learning Course | | | | |
| \*Description  Please provide 2-3 sentences which capture the essence of your literacy/numeracy initiative.  The Leading Numeracy professional learning course aimed to build the strategic capacity of school leaders to work with teachers in their school community to develop sustainable improvement in student numeracy outcomes by developing:  - their knowledge and understandings of numeracy content knowledge, pedagogical and  pedaogical content knowledge (DEECD, 2009)  - instructional leadership capabilities to work with their staff to develop and sustain a whole-school  culture supportive of improved practices in assessment and instructional practices to improve  student outcomes in numeracy.  The course was developed and delivered by numeracy experts in the field. | | | | |
| \*State associated with the initiative.  (place X against corresponding state) | | | | |
| Australian Capital Territory | |  |
| New South Wales | |  |
| Northern Territory | |  |
| Queensland | |  |
| South Australia | |  |
| Tasmania | |  |
| Victoria | |  |
| Western Australia | |  |
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| Associated organisation | | | | |
| Organisation Type (place X against corresponding groups) | | | | |
| School | |  |
| Organisation | |  |
| Organisation name | | | | |
| Bastow Institute of Educational Leadership (DEECD) | | | | |
| Organisation contact details | | | | |
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| Mobile: | N/A | | |

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| Related publications Associated publication, strategy or commercial product details. | |
| Is there a particular publication, strategy or commercial product associated with, identified or cited as central to the initiative in this submission? | |
| Yes |  |
| No |  |
| If yes, please provide details. | |
| Name or title of the publication or product:  The owner’s name:  The owner’s phone:  The owner’s email:  The owner’s address:  Website details: | |

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| Description of initiative | | | |
| 1. \* Is this initiative aimed at school-aged children? (place X against corresponding groups) | | | |
| Yes | | |  |
| No | | |  |
| 1. \* Which skill(s) does the initiative target? (place X against corresponding skill) | | | |
| Literacy | | |  |
| Numeracy | | |  |
| Literacy and Numeracy | | |  |
| Other (please specify) | | |  |
| 1. \* Indicate the target group for the project or initiative.   You may tick more than 1 option. (place X against corresponding groups) | | | |
| Primary school students | | |  |
| Secondary school students | | |  |
| Special school students | | |  |
| Teachers of primary school students | | |  |
| Teachers of secondary school students | | |  |
| Teachers of special school students | | |  |
| Teacher educators | | |  |
| Principals of primary school students | | |  |
| Principals of secondary school students | | |  |
| Principals of special school students | | |  |
| Parents and caregivers of primary school students | | |  |
| Parents and caregivers of secondary school students | | |  |
| Parents and caregivers of special school students | | |  |
| Cluster of schools | | |  |
| 1. \* What was the size of the target group?   Please indicate how many students, teachers or principals this initiative was delivered to.  (Max 3,500 characters) | | | |
| Twenty-four school leaders (including two school principals) participated in this intiative during 2010 - 2011.  Eighteen of the participants worked in schools in the metropolitan area; the remaining six particpants worked in schools in rural and remote areas.  It should be noted that as a significant aspect of the professional learning included the role of the numeracy leaders in working with teachers in their school community, the actual number of teachers and their students directly impacted by the initiative has not been quantified, but is likely to be greater than the figures for actual attendance noted above.  Selected student numeracy outcome data was progressively monitored at each school setting during the initiative, in response to identifed students' numeracy learning needs and whole school numeracy priorities and targets specific to each school community. | | | |
| 1. \* What year levels did the initiative target?   If the initiative targeted teachers or principals, indicate the year levels that best apply.  (place X against corresponding groups) | | | |
| Prep/Kindergarten/foundation |  |
| Year 1 |  |
| Year 2 |  |
| Year 3 |  |
| Year 4 |  |
| Year 5 |  |
| Year 6 |  |
| Year 7 |  |
| Year 8 |  |
| Year 9 |  |
| Year 10 |  |
| Year 11 |  |
| Year 12 |  |

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| Description of initiative (continued) | | | | | |
| 1. \* Which student groups did the initiative target?   If the initiative targeted teachers or principals, indicate the year levels that best apply.  (place X against corresponding groups) | | | | | |
| Indigenous students | | |  |
| ESL students | | |  |
| Low SES students | | |  |
| Students with a disability | | |  |
| Students at or below the National Minimum Standard | | |  |
| Gifted and talented students | | |  |
| Other  New arrivals and refugee students | | |  |
| Initiative targeted students from all student groups or was not targeted to particular student groups | | |  |
| 1. \* What was the geographic location of the initiative?   (place X against corresponding groups) | | | | | |
| Metropolitan |  |
| Regional |  |
| Rural |  |
| Remote |  |
| Very remote |  |
| Unsure or not clear |  |
| 1. \* Please indicate the total cost of the initiative.   Please describe, if possible, the costs associated with the implementation of this initiative. (if applicable)  Was a cost benefit analysis done for this initiative? | | | | | |
| \* Personnel costs | | $193, 921.00 | | |
| \* Materials | | $12,100.00 | | |
| \* Administrative | | $10, 800.00 | | |
| \* Capital costs | |  | | |
| Other (please describe what this includes)  Venue, catering, travel, accommodation, CRT replacement, ICT infrastructures | | $22,000.00 | | |
| Total | | $238, 821.00 | | |
| 1. \* Where did the funding for this come from?   (you may check more than 1 option) | | | | | |
| School/cluster funding |  |
| State or Territory Government funding |  |
| Australian Government funding |  |
| Privately raised funding |  |
| Other (please indicate the source)  (Max 3,500 characters) |  |
| . | | | | | |
| 1. \* To what extent were in-kind contributions needed for the initiative to be implemented?   In-kind contributions refer either to staff and community volunteers or donated material resources or both. The response to this question provides an indication of the extent to which volunteers or donations may have been required for the initiative to have been implemented effectively | | | | | |
| If either moderate or major, please describe.  (Max 1000 characters) | | | | | |
| Each school community self-funded Casual Relief Teacher costs for their delegate's participation in the course and their related travel costs and time. | | | | | |

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| Objectives and design of the initiative | | |
| 1. \* What factors prompted the adoption of the initiative? | | |
| Local assessments of student performance |  |
| Student results from NAPLAN |  |
| Meeting the needs of a changing student demographic |  |
| Raising expectations of student performance |  |
| A professional learning experience introducing new ideas or research |  |
| Distributed leadership |  |
| Other (please describe) |  |
| 1. \* What were the main objectives of the initiative?   Specifically, what student capabilities were you trying to improve? [200-400 words]  (Max 3,500 characters) | | |
| The Leading Numeracy professional learning course aimed to build the capacity of school leaders to work with teachers in their school community to develop sustainable improvement in student numeracy outcomes.  The targeted improved student capabilites of this initiative included:  - increased levels of student engagement  - increased student understanding and application of key ideas and concepts in numeracy to promote  independent problem-solving and metacognitive processes to enhance their learning (DEECD, 2009).  The course objectives for school leaders were to increase their understandings of:  - strategies to review current student outcomes in numeracy and instructional practices to identify and plan  for a renenewed whole school numeracy improvement plan  - the stages of students' numeracy development and related evidence-based implications for scaffolding  student learning in numeracy (DEECD, 2009)  - implementing models of collaborative teacher professional learning to build teacher capacity in using student  assessment data to plan for and implement differentiated numeracy instruction.    The initiative was also designed to present school leaders with an overview of recommendations from national and international research and reviews of effective school contexts for numeracy teaching to investigate, and enact at the school level, the range of factors related to effective numeracy teaching and improved student achievement, including:  - teacher quality and teaching styles  - an academic school climate reflected through student behaviours, broad aspirational levels of student  achievement and student views on teachers and the school  - identified factors and strategies for effective numeracy teaching within the classroom, throughout and beyond  the school including:  - language as a focus for learning  - assessment to identifiy and accommodate student difference  - purposeful pedagogy  - a school commitment to, and a shared vision for, numeracy teaching and learning  - reporting and communication protocols to support parents' understanding of school-based numeracy  practices and strategies to support their child's progress in numeracy learning at home (Department of  Education, Science and Training, 2005, DEECD, 2009). | | |
| 1. \* In designing the initiative, how did you assess improvements in student performance?   Provide information on the links between the objectives of the initiative and defined performance targets. You may tick more than 1 option. | | |
| Local assessments of student performance |  |
| Student results from NAPLAN |  |
| Other (please describe)  (Max 3,500 characters) |  |
| Assessments of improved student performance in numeracy were selected and used at the school level to inform and review a whole-school numeracy improvement plan and inform classroom instruction.  These assessments included NAPLAN and selected local assessments administered within the classroom learning program to monitor and review improvements in students' numeracy outcomes:  - standardised numeracy assessments such as Progressive Achievement Tests in Mathematices (ACER, 2010)  and the Numeracy Progress Tests (Hodder and Stoughton, 2000)  - diagnostic numeracy assessments including the Mathematics and Fractions and Decimals Online Interviews  (Department of Education and Early Childhood Development )  - assessment guided approaches to numeracy instruction including Assessment for Common Misunderstandings  and Scaffolding Numeracy in the Middle Years (DEECD)  - student responses to numeracy tasks in the National Assessment Program - Literacy and Numeracy  - On Demand Progress tests in Mathematics used for:  • pre-testing students prior to beginning a topic  • applying the same test to post-test a topic of work  • testing new intake students or late arrivals  • identifying individual students' strengths and weaknesses  • corroborating teacher judgments  • assisting in forward planning of teaching programs (Victorian Curriculum and Assessment Authority).  - timely and strategic feedback to student activities and assessment tasks (National Numeracy Review, 2008)  - scoring rubrics to identify areas for student improvement and facilitate accurate student self-assessment.  At the school level, principals and school leaders selected and implemented strategies to assess the impact of learnings from the course, which they shared with their teachers to improve assessment and instructional practices in support of improved student achievement in numeracy. | | |
| 1. \* Describe the key ideas and research that supported your selection of this particular initiative.   (Max 3,500 characters) | | |
| The Department of Education and Early Childhood Development has contributed to and learned from the national and international research base on school improvement, leadership and teacher instructional practice.  To improve student learning outcomes and aspirations, defining what highly effective teachers do in the classroom remains a priority in the educational reform agenda in Victorian government schools; recogninsing the significant impact that school leaders have on teaching and learning in classrooms and acknowledging that school leaders require a deep understanding of quality instruction, to effectively support teachers in improving student learning outcomes (DEECD, 2006; 2007; 2012a).    The specific numeracy focus for this initiatve was informed by longitudinal statewide, national and international system performance data analyses of student outcomes, and the finding that performance across the system had not improved as expected (DEECD, 2012b).  The key ideas and research base for the course content of this numeracy professional learning initiative built on the findings and recommendations from signinficant Depatmental numeracy research projects research including the Early Years Numeracy Research Project (1999 -2001), the Middle Years Numeracy Research Project (2001) and Scaffolding Numeracy in the Middle Years (2003-2006).  The collective ideas and recommendations from these projects that informed the selection and content of this  particular intitative included:  - effective and professional leadership and coordination at the school level is essential to drive improved  student outcomes in numeracy  - a shared set of beliefs and understandings about numeracy, supported by a whole-school approach to  numeracy planning and instruction make a difference to students' numeracy outcomes  - multiple and progressive assessments of students' knowledge of key aspects of numeracy are essential to  inform curriculm planning and instruction so that students are scaffolded to meet developmental learning  trajectories and engage in appropriate and effective learning activities  - consideration to how students' numeracy learning is organised and supported within all areas of learning.  The presentation and professional conversations about these key ideas and recommendations supported the course participants to develop their personal beliefs and understandings about numeracy teaching and learning, and their capacity to work with their staff to review and implement a whole school approach to numeracy teaching and learning to improve student learning outcomes. | | |

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| Implementation | | |
| 1. \* How were participants selected for the initiative? | | |
| Self selection |  |
| Analysis of needs |  |
| Other (please specify) (Max 3,500 characters) |  |
|  | | |
| 1. \* Provide an overview or narrative of the project, sufficient for a teacher to have a general understanding of the initiative. Include the design and logic, the major stages and what participants did when in each part of the project.   (Max 3,500 characters) | | |
| The Leading Numeracy professional learning course focused on increasing the capacity of principals and school leaders to:  - develop a whole-school approach to numeracy improvement  - work with and support teachers to review and modify their numeracy teaching practices to improve student  outcomes in numeracy.  The professional learning initiative included five topics, each with specified learning outcomes to guide particpants' learning:  1. Reviewing current teaching practice and student numeracy achievement  Learning Outcomes  - Review a school's current performance using student numeracy learning outcome indicators and review a  school's current teaching practice in numeracy  - Create and sustain a whole school approach to numeracy assessment that provides accurate evidence to  inform improvement in numeracy learning and classroom instruction  - Use strategic knowledge of stages of students' numeracy development to suport effective numeracy  instruction  - Use evidence-based models of collaborative teacher professional learning to build teacher capacity in  planning for and implementing differentiated numeracy instruction.  2. Building teacher capacity to link assessment with numeracy instruction  Learning Outcome  - Understand how to create and sustain a whole school approach to numeracy assessment that provides  accurate evidence to inform improvement in numeracy learning and classroom instruction.  3. Enhancing teacher knowledge in numeracy  Learning Outcome  - Use strategic knowledge of stages of students' numeracy development to plan for and support effective  numeracy instruction.  4. Building teacher capacity in teaching numeracy  Learning Outcome  - Understand how to use evidence-based models of collaborative teacher professional teacher learning to build  teacher capacity in numeracy instruction.  5. Building teacher capacity to provide for individual difference in numeracy  Learning Outcome  -Understand how to strengthen teachers' capacity to differentiate numeracy instruction.  The course was delivered over a 20 week period. It provided a blended learning delivery model including:  - two, one-day face-to-face sessions on each of the five course topics facilitated by expert numeracy researchers  and exemplary leaders in the field  - the delivery of online video material, research papers and articles, each with deeper learning achieved  through set tasks and online discussion forums with networked colleagues and the expert presenters who  facilitated the face-to-face sessions for each course topic. | | |
| 1. \* How were data on the outcomes of the project collected? | | |
| Questionnaires |  |
| Interviews |  |
| Tests or other formal assessments |  |
| Other (please specify) (Max 3,500 characters) |  |
| Data on the outcomes of the project were collected at two levels, for three distinct cohorts:  Level 1 Course provider and course facilitators  - Questionnaires to course participants during and at the end of the course to monitor their learning and  the relevance of the course content to their local context and school numeracy improvement agenda  - Interviews with course participants and facilitators to review the applicablity and transfer of knowledge  developed in the school context.  Level 2 Course participants, teachers and students in their school community  - Interviews between course participants and teachers to review the outcomes of the project in shaping and  supporting school-based planning and implemtation for improved numeracy instruction  - Assessments of student numeracy learning outcomes as selected and administered by the schools, to measure  the impact of the project on improving students' numeracy achievement levels. | | |
| 1. \* Describe the extent to which participants and/or key stakeholders were involved in the design of data collection.   For example, you may have conducted consultations, focus groups, or interviews with parents and caregivers, or consulted teachers, in designing instruments to collect data.  (Max 3,500 characters) | | |
| To measure participants' learning outcomes throughout the course, consultation between the course provider, course facilitators and participants occurred to design and implement the data collection process and included:  - interviews  - online surveys  - Performance of Understanding Artefacts .  At the school level, the design of the data collection process to investigate changes to teacher practice and improved student outcomes in numeracy was negotiated between the principals, school leaders and the teachers they worked with, typically discussed at professional learning forums. | | |
| 1. \* What types of comparisons were made to assess the contribution of the initiative in lifting literacy and numeracy outcomes for school students? | | |
| Before and after comparisons |  |
| Comparisons with participants and non-participants |  |
| Both |  |
| Comparisons between different categories of participants or stakeholders |  |
| Other (please describe) (Max 3,500 characters) |  |
| The types of comparisons made to assess the contribution of the initiative in lifting numeracy outcomes for students were the responsibility and the role of the course participants, based on identified local student needs and the existing whole school numeracy assessment schedule. As previously detailed, a range of standardised and diagnostic assessment tools were adopted for this purpose, as well as a number of classroom assessment tasks including teacher professional judgements of student progress against the Mathematics domain of the Victorian Essential Learning Standards and scoring rubrics.  Reporting of student numeracy outcomes was not a course requirement, as one of the aims of the course was to empower school leaders to lead sustained and significant change in numeracy teaching and learning in their school community. However, evaluative reports as measured by participants' survey response feedback statements, as well as individual participant's documented performances of understanding and peer presentations, demonstrated advanced understandings of their knowledge and skills of numeracy pedagogical content knowledge and instruction as a result of their particpation in the course. | | |
| 1. \* How many participants were in each of the comparison groups?   (Max 3,500 characters) | | |
| N/A | | |

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| Outcomes | | |
| 1. \* To what extent did the initiative demonstrate that it contributed to improved student literacy or numeracy outcomes? | | |
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| 1. \* Describe the evidence used to support the rating given in the preceding question.   (Max 3,500 characters) | | |
| The data collection design for this intiative at the course level did not include pre and post-assessments of student's numeracy outcomes.  However, at the school level, valid and reliable assessments such as NAPLAN, the Mathematics and Fractions and Decimals Online Interviews and locally identified numeracy assessment measures suggested varying degrees of improved student numeracy outcomes. School leaders identified areas for improved teacher numeracy practice, in response to identified student learning needs. | | |
| 1. \* What were the main factors that contributed to the success of the initiative?   Provide a detailed description and explanation with reference to the key ideas/research and/or prior experience which underpinned the initiative. [400-600 words]  (Max 3,500 characters) | | |
| A key factor contributing to the success of the initiative was that it was student-centred and evidence-based, recognising the importance of instructional leadership capabilities in the school context to build teacher capacity to improve students' numeracy outcomes. Participants self-selected for participation in the course, in response to the identified numeracy learning needs of their students at the school-level, and an authentic review and appraisal of their own numeracy knowledge and that of their staff. As such, the level of intrinsic motivation to engage with the course content and apply the knowledge learnt back in their schools was high.  The course content and delivery were other main factors contributing to the success of the initiative.  The course content was structured around explicit learning outcomes for each of the five topic areas in the course. It was intended that this would support the participants to:  - develop confidence and personal motivation to tackle the challenge of improving numeracy outcomes for all  students  - act decsively and strategically to improve numeracy instruction within their school  - identify strategic and sustainable improvement processes to support student progress in numeracy.  The participants when surveyed, strongly agreed that throughout the course, the specified learning outcomes were helpful in developing their understanding and knowledge of effective numeracy instructional practices and processes to improve student outcomes in numeracy at the whole school and classroom levels.  The spaced nature of the course delivery model allowed for cumulative and progressive learning which the participants were able to share with staff in their school communites, building a collective capacity for high quality, responsive, evidence-based numeracy instruction. The use of blended learning opportunities and the provision of ongoing support from expert numeracy facilitators and presentations by invited keynote speakers were all highly rated by course particpants. In the end of course particpant survey, there was strong agreement that these elements of the course design had positively impacted their learning, and in turn, that of their colleagues, to support improved student numeracy learning outcomes. | | |
| 1. \* Did the initiative produce any positive or negative outcomes that were unplanned or unanticipated? Were there factors which may have constrained or diluted the impact of the initiative? | | |
| Yes (please provide detail below) (Max 3,500 characters) |  |
| No |  |
| N/A | | |
| 1. \* Provide evidence to support the sustainability of the initiative, or information that indicates it could be sustainable. If longitudinal data are unavailable, what other data can support the likelihood of sustainability of the underlying concept or design?   (Max 3,500 characters) | | |
| Responsibility for the application of the learning outcomes aligned to this initiative rested with the course participants; in particular, their capacity to collaborate with colleagues and their investigation of the leadership capabilities required to lead significant change in numeracy teaching and learning for improved student outcomes.  Participants' responses to the progressive and final course evaluation surveys and their informal feedback statements, reported that their capacity to do this was positively impacted as a result of their participation in the course:  - "All of the sessions have made me reflect, learn and think about future directions in numeracy at our school. It  has got me strategically thinking about how to raise the profile of numeracy within the school and as a  school leader, deepr pedagogy needs to be implemented into our Annual School Improvement Plan to  support learning in numeracy."  - "A challenging course, some really solid ideas based on research and useful to take back to school to make  sustainable changes."  On average, participants' responses indicated that they strongly agreed that:  - the course content was relevant and applicable to their work in supporting improved student outcomes in  numeracy at their school  - their knowledge, and capacity to differentiate numeracy teaching and learning, as well as that of  their colleagues was significantly enhanced.  Informal feedback statements from participants regarding the strongest features of the course were also indicative of evidence to support the sustainability of the initiative in their local context and included:  - "Excellent references which prompted professional conversations that supported my understanding of the  'big ideas' in numeracy and the implications for working with staff to develop a whole school approach to  numeracy teaching and learning."  - "Know so much more about a range of assessment tools we can use at school and am now more confident to  continuously use that information to support differentiated student learning."    At a system level, information that indicates the impact of the initiative and its sustainability at the school-level, is indicated by the high demand for the program, with many inquiries from potential participants wishing to enrol in the course. | | |

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| Replication | | |
| 1. \* What challenges might a school prepare for if it undertakes this initiative?   (Max 3,500 characters) | | |
| In undertaking this course, potential challenges a school might face include ensuring that:  - at the school level, processes are in place to create and/or sustain the climate and conditions to lead teachers  to review and improve their numeracy practices  - there is a strong readiness and/or commitment to the use of student numeracy data to inform planning and  instruction for student-centred numeracy learning  - dedicated and targeted time for engagement in, and completion of, all components of the course design is  maintained throughout the course, including professional readings and personal reflection, peer learning  groups, workshops, online forums and the completion of Performances of Understadning and peer  presentations. | | |
| 1. \* What information indicates that the initiative could be replicated in a variety of different settings? What conditions would be required for the initiative to be successfully replicated across other schools, systems, locations or student groups?   (Max 3,500 characters) | | |
| The course participants in this initiative included primary and secondary school leaders from metropolitan, regional and rural school communities, which is indicative of its potential for replication in a variety of different settings, across other schools and systems.  Similarly, the identified challenges a school might prepare for in undertaking this initiative reflect the conditions for the successful replication of this initiatve, including ensuring that:  - at the school level, processes are in place to create and/or sustain the climate and conditions to lead teachers  to review and improve their numeracy practices  - there is a strong readiness and/or commitment to the use of student numeracy data to inform planning and  instruction for student-centred numeracy learning  - dedicated and targeted time for engagement in, and completion of, all components of the course design is  maintained throughout the course, including professional readings and personal reflection, peer learning  groups, workshops, online forums and the completion of Performances of Understanding and peer  presentations.  In brief, perhaps the best evidence-based condition for the successful replication of this initiative is aligned to the notion that effective professional learning requires sustained attention, study and action to deepen professional understandings, transform beliefs and assumptions, that in turn change habits and affect practice to support improved student learning outcomes (Sparkes, 2003, as cited in DEECD, 2007, p.2) | | |
| 1. \* Where has the initiative been shown to be effective? | | |
| Schools |  |
| Government |  |
| Non-government |  |
| Systemic |  |
| Groups |  |
| Early childhood |  |
| Primary school |  |
| High school |  |
| Special school |  |
| Other (please specify) |  |
| Settings |  |
| In school |  |
| After school |  |
| Home |  |
| Community |  |
| Locations |  |
| Metropolitan |  |
| Regional |  |
| Rural |  |
| Remote |  |
| Very remote |  |

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| Additional information |
| 1. \* Provide three points that describe the essence of your project for a teacher audience.   (Max 3,500 characters) |
| The major theme for this initiative is leaders supporting teachers to improve numeracy teaching practices informed by research, to positively impact on student learning outcomes in numeracy.  The course content is designed to deepen participant's knowledge and understanding and transference of:  - numeracy pedagocial content knwoledge and evidence-based approaches to numeracy instruction  - the use of a range of assessment tools to analyse students' existing numeracy behaviours and plan for targeted and differentiated numeracy instruction at the individual student, class and whole school level  - the leadership capabilities required to support teachers to become effective numeracy teachers with high  standards of numeracy instruction so that all students are learning to their full potential.    The course content and delivery provides an innovative professional learning context that empowers participants to develop collaborative teaching and learning practices with teachers in their school community to develop an inherently sustainable and localised whole school numeracy improvement approach, targeting identifed student numeracy learning needs. |
| 1. If available, provide a good news story or testimonial.   (Max 3,500 characters) |
| Selected testimonials from the course survey responses:  " This was one of the most professional learning experiences I have attended. I appreciated the knowledge and expertise of the presenters, the research and professionlaism that went into the preparation of the course. The exchange of ideas, different learning contexts, experiences and opinions of other participants were all extermely valuable. I have appreciated their presentations and honesty in sharing their numeracy journey."  "Very useful and practical course. Looking forward to embedding new knowledge and skills back at school and leading staff into new directions to benefit our students' learning in numeracy."  - "The further into this course we went the better it got. Whilst our school already had very strong links with learning and assessment and as it's something I have a particular interest in and aptitude for, I was challenged to think outside the square at every session."  - "Differentiating the curriculum to adapt to suit individual student learning needs. Building teacher capacity to create a positive learning experience and to meet the needs of all students. All of this so important and I now have the knowledge and skills to work with my staff to do this." |

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| Attach information or data |
| Please list and briefly describe any attachments to this form. (Excel spreadsheets, graphics, pictures, etc)  **Please note that these will not be included for assessment but may assist with the published article should the strategy be recommended and endorsed.** |
| Attached to this are the following documents:  - Course reference list  - End of program evalaution report |