The Centre for Cognition Research in Learning and Teaching

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- **National Schools' Cricket Review**
- **Assessment Practices: Empowering mathematics and science teachers**
- **A Validation Study of the Draft NSW Professional Teaching Standards**
- **Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology**

“Curriculum innovation without a cognition basis is folklore”
About CRiLT

The Centre for Cognition Research in Learning and Teaching (CRiLT) is a research centre of the University of New England within the Faculty of Education, Health and Professional Studies. It is located within the School of Education.

Fundamental to the initiatives of members of CRiLT is:

- seeking out general theoretical foundations which underpin students’ learning in the educational process, while taking into account the diversity and variability in human thought and behaviour;
- undertaking applied cognition research and professional development activities into teaching and learning in specific discipline areas;
- applying research findings to enhance learning and teaching;
- utilising the quantitative and qualitative research skills of its members in education-related international and national contexts; and
- using the demonstrated organisational ability and infrastructure of CRiLT to plan, coordinate and carry out large, complex research/consulting activities.

The mission of CRiLT is to undertake research under the general rubric of Applied Cognition as it relates to learning and teaching in specific discipline areas. This is done with the purpose of providing empirically grounded, theoretical perspectives to enhance primary, secondary, tertiary and life-long education within different cognate areas.

The Centre has evolved and taken on a character that is distinctive from other research centres in the University and across Australia. Members of the Centre have applied their research expertise by undertaking research and professional development activities and supporting other groups outside and within Australia with teaching and learning concerns. The Centre has also evolved into an organisation to provide a sound basis for new initiatives with the organisational structure to manage very large education-based projects. Members of the Centre have completed the review of the examination system in Hong Kong, are currently involved in three separate UNESCO projects, and are working with the NSW Department of Education and Training on a very large grant with the purpose of identifying and analysing exceptional schooling outcomes.

CRiLT has also been successful in developing links with international Centres of research and professional development activities. Four such centres stand out. The first is the National Center for Improving Student Learning & Achievement in Mathematics and Science (NCISLA) at the University of Wisconsin-Madison. This centre is under the Directorship of Professor Tom Romberg. The second is the School Administration and Management System Training and Research Unit (SAMS) at the Hong Kong Baptist University and is under the Directorship of Professor Alex Fung. The third centre is the NASA Classroom of the Future (COTF) at Wheeling Jesuit University under the leadership of Dr Steven McGee. The fourth centre is the Laboratory for the Assessment and Training of Academic Skills (LATAS) at the University of Massachusetts under the directorship of Professor Mike Royer. All these centres reflect aspects of work in cognition and currently each is associated with either undertaking or planning joint initiatives with members of CRiLT.

In the case of the NCISLA, a current Large ARC project in Developmental-based Assessment and a grant from the Catholic Schools Office of NSW is consistent with, and extends the research currently being undertaken by, project teams in assessment. Professor Romberg is an associate investigator on the large ARC grant and joined members of CRiLT in the symposium on the developments of the SOLO model given at the 2000 American Education Research Association Conference in New Orleans.

The work with SAMS and Professor Fung resulted in the awarding of the largest research/consultancy contract ever won by members of the Faculty at the University of New England. This project involved the review of the examination system in Hong Kong. Other research consultancies in Hong Kong between the two centres are currently being planned.
COTF is an organisation that has received large funding support from NASA. The links forged here with CRiLT are based on the application an assessment model used to evaluate the efficacy of the state-of-the-art technology resources they have developed. Already papers have been written on this partnership and joint grants have been submitted to bring the two Centres closer together.

Finally, the LATAS Centre at the University of Massachusetts has linked with members of CRiLT. The purpose is to set up a program similar to the successful one used in the United States to help low achievers in Mathematics and Reading. The purpose is to establish an experiential base in CRiLT to not only serve rural NSW in helping students with problems in these areas but to commence new programs of research to identify better ways to assist student leaning, especially for low achievers. The theoretical position adopted by Professor Royer is consistent with that of research undertaken in CRiLT. Moreover the models developed and used within CRiLT add a new dimension to the research undertaken in the US and offer the possibility to open up the field so that it becomes directly relevant to school teachers and curriculum innovators. This is particularly relevant given the current emphasis on literacy and numeracy worldwide and stands to offer a valuable perspective and contribution to current initiatives.
Background and Strategic Plan

Background

In 2002 the Faculty of Education, Health and Professional Studies underwent a major restructuring process. Emerging from this were four new Schools. The largest of these new Schools is the School of Education. Membership of this School, in excess of 90 academic and administrative staff, derives from all members of the former Departments of Science, Technology and Mathematics Education and Arts Education and members of staff from the former Departments of Learning, Development and Communication, and Social Science Education.

Another feature of the restructuring process was the formation within each school of a research centre which, while residing within a school, would be open to membership from relevant persons in other schools and, where applicable, staff members of other Faculties. The research centres to be established were to be built around existing research strengths and the purpose was to provide a clear focus for a more concentrated research effort.

The School of Education has identified one area of research strength within the school to be that linked to cognition-based research into the learning and teaching process. Already there was a strong record of research grants and publications in this area. In addition, this theme also encompasses the proposed research directions of many new researchers in the School. Further, the two existing centres, namely, the Centre for Research into Technology Education (CRITE) (within the former Department of Science, Technology and Mathematics Education) and the Centre for Research into the Educational Application of Multimedia (CREAM) (a faculty-based centre), have research directions consistent with the proposed Centre and were subsumed within the focus of the new centre.

Justification

The primary justification for the establishment of a Centre of research concerned with the applied cognitive aspects of teaching and learning is to raise the research profile in areas of demonstrated strength and performance. However, other reasons exist and they can be considered under broad categories, namely:

- a need to provide a tighter, more inclusive, research focus for the newly formed School of Education;
- a desire to reward, and encourage further, demonstrated academic excellence in this field of educational research;
- a need to establish a research basis that addresses issues of importance to Australia;
- an attempt to provide a marketing niche which would encourage research funding and postgraduate students;
- and a desire to provide an international and national focus for large and complex research projects and consultancies.

An important feature of the new Faculty structure, which encompasses schools with relatively large numbers of academic staff, was to provide a clear and separate focus for research activity. While not attempting to curtail any current research directions, or initiatives, the decision was taken to focus on an identified area of strength and to support it through Faculty resources. This procedure has the ability to maximise the research influence by allowing research findings to advance across a broad front.
In order to provide an inclusive theme that was compatible with staff interests and which was consistent with numerous publications and research projects within the School/Faculty, the focus of the Centre is directed towards applied cognition issues associated with teaching and learning.

While there is a growing acceptance of the need for theoretical models to underpin teaching and learning processes, there has not been a concentrated effort, across such a broad content range, by a university group within Australia to specifically address this issue. The work of the Centre has strong theoretical and practical applications and, as such, is a means of establishing close links with State and national bodies within Australia, such as the State Board of Studies, State Departments of School Education, the Catholic Education Office, the Independent Schools Association and relevant Commonwealth bodies in Canberra.

Finally, the Centre with its direct relevance to practice, offers an important opportunity to present a united front of a large number of highly qualified staff to attract research funding. The strength of some current and past endeavours in this area can be used to provide a basis for new projects in the future. Also, the Centre has established strong links with overseas bodies including UNESCO, UNICEF and the Asian World Bank.

A founding member of CRiLT, Peter Anderson sadly passed away in 2000.
The CRiLT Team

Executive Membership:

Director:

Professor John Pegg

John is a Team Leader of the following projects:

- ÆSOP - Exceptional Schooling Outcomes Project (Team Leader)
- Year 8 Mathematics Day [ongoing]
- QuickSmart: A longitudinal study investigating enhancing the basic academic skills of low achieving students [current]
- Improving assessment practices: Empowering mathematics and science teachers in rural areas to improve learning and curriculum implementation ARC [current]
- A validation study of a framework of draft professional standards for NSW teachers [current]
- Professional Development Models for Secondary Schools- ITAM & Hits [completed]
- Tertiary Teaching and Learning - Teaching Outcomes in 1st Year Biology Units [completed]
- Developmental-based Assessment in Mathematics [completed]
- Developmental-based Assessment and Instruction [completed]
- Review of the Examination System in Hong Kong [completed]
- van Hiele Theory - Identifying van Hiele Levels in Geometry [completed]
- A Longitudinal Exploration of Individual Differences in the Acquisition of Geometric Competencies [completed]
- Identifying and Interpreting Year 12 Performance Outcomes for Mathematics Courses in NSW [completed]
- Improving Students' Learning - Foundation Studies in Biology [completed]
- Supporting Demonstrators in First-year Biology [completed]
- Uzbekistan Delegation Visit to NSW, Australia [completed]
- Numeracy Research in NSW Primary Schools Project (Phase 1) [completed]
- SOLO and van Hiele models: a synthesis [completed]
- Van Hiele Theory - Levels in Understanding [completed]

John is also working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Mentor) [current]
- Assessment in a Technology Environment [current]
- Mathematics and Technology [ongoing]
- Numeracy Research in NSW Primary Schools Project (Phase 1) [completed]
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]
- Statistics Education - International Conference [completed]

Deputy Director:

Associate Professor Stan Bailey

Stan is a Team Leader of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Mentor and Team Leader) [current]
- Rural Gifted and Talented [completed]
- Disadvantaged and Culturally Different Gifted and Talented [completed]
- Parents as Lifelong Teachers: Development of a Multi-media Package for Parents of Isolated and Disadvantaged Gifted and Talented Students, K-2 [completed]
● Gifted and Talented Indigenous Students [completed]
● Gifted and Talented Day [ongoing]

Deputy Director
Professor Steve Dinham
Steve is a Team Leader of the following project:
● AESOP - Exceptional Schooling Outcomes Project [Chief Investigator] [current]
● The Australian National Schools' Cricket Review [current]

Deputy Director (International)
Dr. Ken Vine
Ken is a Team Leader of the following projects:
● Recovery Phase in Afghanistan - Education [completed]
● South Asia Assessment of Learning Achievement Project (SAALA) [completed]
● UN Education for All 2000 Assessment in the Asian Pacific Region [completed]
● Assessment of Adherence in South Asia to the UN [completed]
● Review of the computer-based education management information system of the Office of the National Primary Education Commission (ONPEC) of the Government of Thailand [completed]
● Making Effective Use of Examination Results to Improve Teaching and Learning in Bhutan [completed]
Ken is also working as a member on the following projects:
● Review of the Examination System in Hong Kong [completed]
● AESOP - Exceptional Schooling Outcomes Project [completed]

Support Staff of the CRiLT Management Team

Research Projects Management Officer
Mrs. Michaela Inglis
Michaela is a Team Leader of the following projects:
● Year 8 Mathematics Day 2002 (convenor)
● Mathematical cognition in vocational contexts
● SOLO in professional development of mathematics teachers
Michaela is also working as a member of the following projects:
● Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology [current]
● Developmental-based Assessment in Mathematics [completed]
● Developmental-based Assessment and Instruction [completed]
● Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]
Administrative Assistant:
Mrs. Debra Jenner

Application Programmer:
Mr. Don Parsons

VC Postdoctoral Fellow:
Dr. Terry Lyons

Project Team Leaders/Members in CRiLT

Mr Tony Brown
Tony is a Team Leader of the following projects:
- Research in Educational Applications and multi-media (CREAM) - Teaching in Contexts [completed]
- Research in Educational Applications and multi-media - Hybrid Distribution System [completed]

Dr David Baxter
David is a Team Leader of the following project:
- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Chief Investigator English) [current]
- A validation study of a framework of draft professional standards for NSW teachers [current]

Ms Rosemary Callingham
Rosemary is a Team Leader of the following projects:
- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Chief Investigator Mathematics) [current]
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]
- Changing places - making links

Rosemary is working as a member of the following project:
- Numeracy Research in NSW Primary Schools Project: Phase 2
Dr Bruce Cameron

Bruce is working as a member of the following project:

- Investigating Years 5 and 6 gifted and talented students’ knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Science) [current]

Dr Graham Chaffey

Graham is a Team Leader of the following project:

- Disadvantaged and Culturally Different Gifted and Talented

Mr Garry Clark

Garry is a Team Leader of the following projects:

- Software Development [ongoing]
- Mathematics and Technology [completed]
- Conversion of Information Technology Units to Online Delivery [completed]
- Problems and Issues in Implementing a Computer-based EMIS in Turkmenistan [completed]

Garry is also working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology [current]
- Research in Educational Applications and multi-media - Hybrid Distribution System [completed]
- Implementation of an Educational Management System in Dashoguz Velayat [completed]
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]

Dr Gerry Corrigan

Gerry is a Team Leader of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Chief Investigator Science) [current]

Dr Bev Croaker

Bev is working as a member of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (English) [current]
Dr Scott Dickson

Scott is a Team Leader of the following projects:

- The Australian National Schools' Cricket Review [current]
- A validation study of a framework of draft professional standards for NSW teachers [current]
- Competencies of Rugby Referees [completed]
- A Preliminary Investigation into the effectiveness of the National Coach Accreditation Scheme [completed]
- Advancement in Sport Coaching and Officiating Accreditation [completed]

Scott is also working as a member of the following project:
- ÆSOP - Exceptional Schooling Outcomes Project [current]

Mrs Judith Falle

Judith is working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Mathematics) [current]
- Numeracy Research in NSW Primary Schools Project: Phase 1 (completed)
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]
- Numeracy Research in NSW Primary Schools Project (Phase 2)

Dr Lorraine Graham

Lorraine is a Team Leader of the following projects:

- QuickSmart: A longitudinal study investigating enhancing the basic academic skills of low achieving students [current]
- A validation study of a framework of draft professional standards for NSW teachers [current]
- QuickSmart
- QuickSmart Consultancies
- QuickSmart Clinic

Lorraine is also working as a member of the following project:
- ÆSOP - Exceptional Schooling Outcomes Project [current]

John Haynes

John is a Team Leader of the following project:

- Application of Cognitive Theory to the Developmental Stages of Learning a Fundamental Motor Skill [current]

Dr David Laird

David is a Team Leader of the following projects:

- Bhutan Multigrade Attachment Project [current]
- ÆSOP - Exceptional Schooling Outcomes Project [Chief Investigator] [current]
- Impact of INSET in Bhutan and Development of a Seven Year Plan [completed]
Dr Christine (Chris) Lawrie

Chris is a Team Leader of the following projects:

- Van Hiele Theory - 3D Geometry Project [completed]
- Numeracy Research in NSW Primary Schools Project (Phase 2)

Chris is also working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Mathematics) [current]
- Numeracy Research in NSW Primary Schools Project: Phase 1 [completed]
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]

Dr Heather Mays

Heather is working as a member of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Mathematics) [current]
- Assessing geometrical understanding in the middle school (Years 5 - 8) [completed]

Dr Judy Miller

Judy is a Team Leader of the following project:

- Motor Proficiency Instrument for the Australian Population [completed]

Paul Muirhead

Paul is working as a member of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (English) [current]

Associate Professor Col Mulquiney

Col is a Team Leader of the following projects:

- Development of an Educational Management System for Turkmenistan [completed]
- Implementation of an Educational Management System in Dashoguz Velayat [completed]

Col is also working as a member of the following projects:

- Tertiary Teaching and Learning - Teaching Outcomes in 1st Year Biology Units [completed]
- Supporting Demonstrators in First-year Biology [completed]
Dr. Debra Panizzon

Debra is a Team Leader of the following projects:

- Assessment in a Technology Environment [ongoing]
- Tertiary Assessment Techniques using the SOLO Model [ongoing]
- Assessment practices: Empowering mathematics and science teachers in rural areas to improve learning and curriculum implementation ARC [current]
- Improving student learning outcomes in secondary mathematics and science: An exploration of lesson components used by exemplary teachers [current]
- A validation study of a framework of draft professional standards for NSW teachers [current]
- Exploration of the National Science and Mathematics Examination for Grades 6, 9 and 12 in East Timor [completed]

Debra is also working as a member of the following projects:

- AESOP - Exceptional Schooling Outcomes Project [completed]
- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Science) [current]
- Developmental-based Assessment [completed]
- Developmental-based Assessment and Instruction [completed]
- Tertiary Teaching and Learning - Teaching Outcomes in 1st Year Biology Units [completed]
- Supporting Demonstrators in First-year Biology [completed]

Mitchell Parkes

Mitchell is a Team Leader of the following projects:

- Teaching and Learning on-line [under development]

Mitchell is also working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (IT) [current]
- Research in Educational Applications and Multi-media - Hybrid Distribution System [completed]

Dr. David Paterson

David is working as a member of the following project:

- AESOP - Exceptional Schooling Outcomes Project [current]

Dr. Christine (Chris) Reading

Chris is a Team Leader of the following projects:

- Secondary Students' Understanding of Variance [completed]
- Secondary Students' Perception of Variation [completed]
- Student Responses in a Sampling Situation [completed]
- Statistics Education - International Conference [completed]
- Technology and Schooling - Teachers and IT [completed]

Chris is also working as a member of the following projects:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (IT) [current]
- Research in Educational Applications and multi-media - Hybrid Distribution System [completed]
Dr. Ted Redden

Ted is a Team Leader of the following projects:

- The Australian National Schools' Cricket Review [current]
- "ÆSOP - Exceptional Schooling Outcomes Project [Chief Investigator] [current]
- Improving Collection and Management of Education Data [completed]
- Evaluation of Education Indices in Sri Lanka and the Maldives [completed]
- Non-formal Education in Uzbekistan [completed]
- Assessment of the Education for All: 2000 in Turkmenistan [completed]
- Making Effective Use of Examination Results to Improve Teaching and Learning in Bhutan [completed]
- Development of an Educational Management System for Turkmenistan [completed]
- Exporation of the National Science and Mathematics Examination for Grades 6, 9 and 12 in East Timor [completed]

Ted is also working as a member of the following projects:

- Professional Development Models for Secondary Schools - ITAM & Hits [completed]
- Mathematics and Technology [completed]
- Statistics Education - International Conference [completed]

Barry Squire

Barry is a Team Leader of the following project:

- Numeracy Research in NSW Primary Schools Project: Phase 1 [completed]

Howard Smith

Howard is a Team Leader of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Chief Investigator IT) [current]

Howard is also working as a member of the following projects:

- Disadvantaged and Culturally Different Gifted and Talented [completed]
- Research in Educational Applications and multi-media - Hybrid Distribution System [completed]

Ms Robyn Smyth

Robyn is working as a member of the following project:

- "ÆSOP - Exceptional Schooling Outcomes Project [current]

Neil Taylor

Neil is working as a member of the following project:

- Investigating Years 5 and 6 gifted and talented students' knowledge, skills and understanding in English, Mathematics, Science and Information Technology (IT) [current]
Professor David Teather

David is a Team Leader of the following project:

- Review of the Examination System in Hong Kong [completed]
Honorary Associates of CRiLT

Professor Kevin Collis
(also a visitor to CRiLT)

Professor Mike Royer
(also a visitor to CRiLT)

Mr John Cook

Professor David Tall
(also a visitor to CRiLT)

Mr Trevor Lynch

Mr Geoff Davey

Mr Paul Holman

Professor Alex Fung

Mrs Elaine Colvin

Dr Maurice Anker

Ms Anne Bellert

Mrs Robyn Hadfield

Dr Lawrie Hanbury
Members of CRiLT (External to UNE)

Dr Sandra Frid

Mrs. Anne Hastings

Dr Adele Jamie

Dr Lesley Levins

Mr Sean Scott
Visitors to CRiLT

Dr Pierre van Hiele

Professor Mike Shaughnessy

Dr Paul White

Dr Joanne Mulligan

Dr Angel Gutiérrez

Dr Jane Watson

Ms Joan Shaughnessy

Will Moroney

Dr. Steven McGee

Associate Professor Mike Mitchelmore

Bruce Mowbray

Dr Peter Sutherland

Ms Debbie Efphymiades

Ms Jenny Chan
Areas of Expertise within CRiLT's Projects

- The SOLO Model
- Gifted and Talented
- Research with Industry
- Assessment and Teaching
- Technology in Education
- Large Project Management
- School-Student Focus
- Physical Education
- Mathematics Education
- Statistics Education
- Application of Professional Development Model
- Science Education
- Literacy
- Education Management
- Overseas Research Consultancy
- Rural and Regional Education
Current Projects

Displaying records 1 through 19 of 19 records found. (19 records displayed).
Click on name of project to view details

Motor proficiency instrument for the Australian population (Ongoing)

Abstract...
This project is concerned with the broad spectrum of motor proficiency in terms of all typically developing primary aged children. In addition, focus is on those children exhibiting coordination difficulties. This research is based on evidence from a doctoral study and is in response to the need for further investigation of the integrity of the American norms of a motor proficiency instrument, the McCarron Assessment of Neuromuscular Development (MAND).

An exceptional schooling outcomes project (ÆSOP) (Ongoing)

Abstract...
A joint research project involving the University of New England, the University of Western Sydney, and the NSW Department of Education and Training, Australia. This project will identify and analyse those junior secondary schooling processes that generate outstanding student learning outcomes in metropolitan, rural, and isolated NSW public schools, including central schools (which are most common in rural and regional NSW). Having identified a sample of up to fifty special sites in Years 7-10 public secondary schooling (in NSW, students aged 12/13 to 15/16), policies, programs and practices leading to these outcomes will be analysed to examine the extent to which, allowing for contextual differences and variations, these research findings can be applied more broadly to Years 7-10 schooling: not merely within NSW, but nationally and even internationally.

Assessment in a technology environment (Ongoing)

Abstract...
Assessing the value of state-of-the-art technology developed by the NASA "Classroom of the Future" to teach science using the SOLO model.

Technology and Schooling – Teachers and IT (Ongoing)

Abstract...
A funded research project to examine how secondary teachers were keeping pace with information technology.

Secondary students (Ongoing)

Abstract...
This research is part of an ongoing investigation into students understanding of various aspects of statistics and will complement earlier research by investigating the particular area of variation in more depth.
Application of cognitive theory to the developmental stages of learning a fundamental motor skill  

Abstract...

The SOLO (Structure of Observed Learning Outcomes) Taxonomy has been researched by a number of scholars, especially in the areas of mathematics and science. These researchers have looked mainly at the Ikoncic and Concrete Symbolic modes of the Taxonomy, however, little research has been completed in its initial Sensori Motor mode.

The project seeks to apply levels within the sensori motor mode of the SOLO taxonomy, for selected fundamental motor skills. The historical perspectives of the origin and development of basic gymnastic skills is being examined in conjunction with an examination of the evolution of motor development theories.

This research is the focus of a PhD.

Impact of INSET in Bhutan and development of a seven year plan.  

Abstract...

This project was completed following a highly consultative model in which development of in-country knowledge and expertise was considered an essential part of the project. The project arose from key educators’ concerns about the value that the inservice (INSET in Bhutan) dollar was providing the Bhutanese education system. However, the impact of INSET had to be considered against the remarkable gains made by the education system and the tensions created by the desire for universal suffrage and the provision of adequately qualified teachers.

Year 8 Mathematics Day  

Abstract...

The Year 8 Mathematics Day is held annually at UNE and is devoted to mathematical problem solving. Between 200 and 300 high achieving students attend this day and it is jointly run by the School of Education and the New England Mathematical Association (NEMA). The Mathematics Day is the largest competition of its type in Australia.

Research in educational application and multi-media (CREAM) - a hybrid distribution system.  

Abstract...

Development of a hybrid distribution system - CD ROM and web.

Tertiary Assessment Techniques using the SOLO Model  

Abstract...

The SOLO model provides a framework for tertiary educators in assessing student responses in all discipline areas. Furthermore, it provides guidance in terms of unit development and the way in which learning experiences could be sequenced to improve student learning.
Software Development (Ongoing)

Abstract...

Mathematical Activities is a CD of 111 activities designed to reveal the level of mathematical thinking of young users and to improve their computing skills. The majority of the activities are suitable for children aged 4 to 10. Many of the activities in the Working Mathematically and Strategy Games sections are suitable for ages 8 to adult.

Problems and Issues in Implementing a Computer-based EMIS in Turkmenistan (Ongoing)

Abstract...

The aim of the project is to assist the Government of the Republic of Turkmenistan to streamline the collection and processing of data in its educational system.

QuickSmart (Ongoing)

Abstract...

Helping students with reading and mathematics difficulties improve their fluency of word recognition and accurate recall of number facts using an innovative approach based on practice, attention to understanding, time as a dimension of instruction, and strategy approaches to learning basic academic skills.

Investigating Years 5 and 6 gifted and talented students knowledge, skills and understanding in English, Mathematics, Science and Information Technology (Ongoing)

Abstract...

The aim of this exploratory project is to investigate the character of giftedness and talent for upper-primary students in English, Mathematics, Science and Information Technology. This research considers students in OC classes and employs empirically-based qualitative assessment techniques to help describe student understandings both within and across key learning areas. The significance of the research is in the insights it offers to how teachers can interpret the needs of gifted and talented in core subjects, and how they may use this information to improve the learning environment for their students by addressing more appropriately student needs and higher learning outcomes.

National Schools Cricket Review (Ongoing)

Abstract...

A study commissioned by the Australian Cricket Board to determine the place of cricket within the broader context of physical education curriculum.

QuickSmart: A longitudinal study investigating enhancing the basic academic skills of low achieving students (Ongoing)

Abstract...

The aim of this research is to understand the cognitive processes that increase fluency in word recognition and recall of number facts for students with learning difficulties. The key question of this study is whether the students who participated in the QuickSmart program in 2001 retain the improvements they made in basic academic skills up to a year after the intervention was completed.
Assessment Practices: Empowering mathematics and science teachers in rural areas to improve learning and curriculum implementation  (Ongoing)

Abstract...
This research project concerns an investigation of mathematics and science teachers in rural schools and their application of qualitative assessment practices to classroom situations.

A validation study of a framework of draft professional standards for NSW teachers  (Ongoing)

Abstract...
This project aims to validate the draft professional standards for NSW teachers, developed by the Interim Committee for a NSW Institute of Teachers.

Improving student learning outcomes in secondary mathematics and science: An exploration of lesson components used by exemplary teachers  (Ongoing)

Abstract...
The aim of this research is to explore and analyse lesson structures used by teachers who obtain outstanding educational outcomes from their secondary students in Mathematics and Science.
Completed Projects
Displaying records 1 through 47 records found.

van Hiele Theory – Identifying van Hiele Levels in Geometry  (Completed)

Abstract...
Exploration of van Hieles level 4 in Years 11 and 12 students. A longitudinal study tracking students in Geometry over three years.

Students Understanding of Variance  (Completed)

Abstract...
An international investigation undertaken in NSW, Tasmania and the US into primary and secondary student understanding of the concept of variance.

Rural gifted and talented  (Completed)

Abstract...
Development of a multimedia information package for parents of isolated and disadvantaged gifted and talented children, in partnership with Armidale Catholic Schools Office.

Large Australian Research/Consultancies-ITAM Projects  (Completed)

Abstract...
Projects with schools and professional subject teaching organisations utilising the professional development model, ITAM.

Review of the Examination System in Hong Kong  (Completed)

Abstract...
A six-part research consultancy to investigate the examination system in Hong Kong.

Research in Educational application and multi-media (CREAM)-Teaching in Contexts  (Completed)

Abstract...
The production and distribution of a CD to help primary teachers and teacher trainees.

Tertiary Teaching and Learning – Teaching outcomes in first year Biology Units  (Completed)

Abstract...
A series of planned workshops, using the ITAM model, to assist lecturers and demonstrators in first-year Biology Units.
Competencies of Rugby Referees  (Completed)

Abstract...

The aims of the project were to: (i) identify the competencies required by referees to officiate rugby union at the senior level; (ii) determine which competencies are most important for refereeing at different competitive levels of senior rugby; (iii) determine the level of competence demonstrated by referees in performing these competencies; (iv) identify which competencies require major focus in officiating education programs; and, (v) provide an assessment framework for evaluating officiating performance.

Developmental-based Assessment in Mathematics  (Completed)

Abstract...

Learning and applying the SOLO Model for assessment by teachers in mathematics and science in secondary and primary schools.

Student responses in a sampling situation  (Completed)

Abstract...

Investigating responses to a specific sampling situation. This project involved data collection from primary and secondary students in Australia and the US.

Statistical Reasoning, Thinking and Literacy Conference 2001  (Completed)

Abstract...

About the planning and development of the second international workshop for top international researchers in statistics education held at UNE in 2001.

Conversion of Information Technology units to online delivery  (Completed)

Abstract...

This grant was awarded for the development of online components in four of the elective units offered in the B. Ed.(Computer Ed.) and M. Ed.(Computer Ed.). As a result of the grant the project team were selected to attend a Project Management Course in Semester Two.

Developmental-based Assessment and Instruction  (Completed)

Abstract...

This project is a joint professional development initiative with the Catholic Schools Office and members of CRiLT. It involves working with experienced teachers of mathematics and science at both primary and secondary levels of schooling. The purpose is to have the teachers understand and use a model of assessment that is concerned with how well students have learnt rather than how much has been learnt.

Numeracy Research in NSW Primary Schools Project (Phase 1)  (Completed)

Abstract...

The UNE team sees the main method of data collected will be through a series of structured interviews (allowing different aspects to be pursued depending on the site) and classroom observations. The team undertook interviews with executive staff, selected teachers, student groups and parents. Some of these interviews were taped but the primary data collection source was by field notes.
Advancement in Sport Coaching and Officiating Accreditation  (Completed)

Abstract...

Reasons for the high percentages of coaches and officials at the lowest level of accreditation are not clear. Nevertheless, reasons have been hypothesised, and some of these relate to factors within the control of sporting organisations and the ASC. For example, accreditation costs, course structure, and access to courses, are cited. With these issues in mind, the aim of this project is to determine systematically what factors are helping or hindering coaches and officials progress through accreditation levels.

Recovery Phase in Afghanistan-Education.  (Completed)

Abstract...

During 2001, Dr Ken Vine and Ms Cathy Vine were engaged by UNICEF to provide specialist advice on computer-based Education Management Information Systems (EMIS). The task was to provide consultancy advice and conduct a technical workshop on the participatory design of an EMIS for UNICEF, UNESCO and a consortium of NGOs providing education services in Afghanistan and in Afghan refugee villages in Pakistan and Iran.

South Asia Assessment of Learning Achievement Project (SAALA)  (Completed)

Abstract...

Dr Vine was engaged by UNICEF’s Regional Office for South Asia to design a large-scale project for the development and implementation of nation-wide assessment of learning achievement programmes in the primary cycle in all eight South Asian Member States, that is, Afghanistan, Bangladesh, Bhutan, India, The Maldives, Nepal, Pakistan and Sri Lanka. The project represents the largest international assessment of learning achievement in the primary cycle yet undertaken by a UN organisation.

Improving collection and management of education data  (Completed)

Abstract...

The terms of reference for the project were to

Review the existing approaches to collection and management of data, including school, sub-district and district level data collection forms, data verification procedures, data collation, analysis and reporting processes.

Review the current plans for data collection, including the school mapping survey and identify the substantive data management needs.

Develop recommendations for development of an appropriate data management approach and strategy for implementation that is appropriate to the context, relevant to priority needs, and consistent with Education For All indicators and reporting processes.

UN Education for All 2000 Assessment in the Asian Pacific Region  (Completed)

Abstract...

Dr Vine was engaged by the United Nations Education for All (EFA)Forum to lead a team of international and national consultants to evaluate progress made in the Asia Pacific Region toward attainment of the EFA objectives. The EFA Forum is a consortium of five UN agencies – UNESCO, UNICEF, The World Bank, UNDP, and UNFPA. The EFA objectives were agreed to by signatories of the Jontiem Agreement at the 1990 UN World Education Conference.
Evaluation of Education Indices in Sri Lanka and the Maldives  (Completed)

Abstract...
This project was a follow up to an earlier report of the Education for All 2000 project that was designed to implement part of the UN Convention on the Rights of the Child. The terms of reference for the project were to:
- Facilitate the identification of Multiple data sources for compilation of educational indicators listed below.
- Assess the validity, reliability, timeliness and completeness of such data.
- Assist in organising the input of selected data into Child Info.
- Write a report that provides a summary of the data entered into Child Info including an assessment of the factors noted above.

Non Formal Education in Uzbekistan  (Completed)

Abstract...
As a result of the disintegration of the USSR in the early 1990s the education systems of many former states of the USSR became under serious threat of collapse due to the withdrawal of Russian expertise and financial support. Consequently, non-formal education (NFE) is being considered as a mechanism to support the transition from a centrally planned economy to a market economy. This study provided data and advice with regard to the non-formal education system in Karakalpakstan which is an autonomous region within Uzbekistan.

Development of an Educational Management Education System for Turkmenistan  (Completed)

Abstract...
Arising out of the work with UNESCO was an opportunity to assist in the development of an Education Management Information System for Turkmenistan. This work is being led by Associate Professor Col Mulquiney and is sponsored by UNICEF.

Assessment of the Education for All:2000 project in Turkmenistan  (Completed)

Abstract...
The assessment project has been encouraged by all the major sponsors of EFA 2000 in an attempt to determine progress on a number of quantitative indicators that focus on quality, access and equity issues common to most education systems.

Education for All (EFA) Assessment 2000 - Afghanistan  (Completed)

Abstract...
This project responded to the urgency of the need for an EFA 2000 Report in the face of great difficulties regarding the gathering of data in Afghanistan, and its compilation, in relation to any current statistics and other data about educational provision in Afghanistan. Also, as a result of the on-going state of war in Afghanistan, few statistics were available for comparative purposes. NGOs based in NWF Province and in the provinces of Afghanistan itself had provided what data that they could and case studies had been commissioned. This project, then, concerned the verification as far as possible of these data (with the support of local representatives), the editing and writing of a credible EFA 2000 Report for Afghanistan. The report and Powerpoint presentation were needed for the Dacca conference in April 2001.

Making effective use of examination results to improve teaching and learning in Bhutan  (Completed)

Abstract...
The project is funded by the World Bank. It follows a report that lamented the lack of use that the Bhutan Ministry of Education was making of data available from their quite sophisticated public examination system.
Assessment of adherence in South Asia to the UN  (Completed)

Abstract...

Dr Vine was engaged by the United Nations Children’s Fund (UNICEF) to lead a team of international and national consultants. The purpose was to provide an assessment of adherence in South Asia to the education provisions of the UN Convention on the Rights of the Child. The assessment covers the following South Asian nations; Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka and The Maldives.

Review of the computer-based, education management information system of the Office of the National Primary Education Commission (ONPEC) of the Government of Thailand  (Completed)

Abstract...

Implementation of an educational management information system in Dashoguz Velayat  (Completed)

Abstract...

As a result of the discussions undertaken by Associate Professor Col Mulquinney in 1999 with regard to the collection of educational data in Dashoguz Velayat, a northern province of Turkmenistan, a number of workshops were undertaken in 2000.

(i) Distance education for rural and isolated gifted and talented students, years 3-10, and (ii) identifying and accommodating the needs of gifted and talented students, K-2.  (Completed)

Abstract...

These parallel action research projects (both initiated and coordinated by the Catholic Schools Office, Armidale) explored appropriate forms of curriculum differentiation for teachers of gifted and talented children in mixed ability classes in rural and isolated areas of Australia.

Parents as lifelong teachers: Development of a multimedia package for parents of isolated and disadvantaged gifted and talented children.  (Completed)

Abstract...

This project, conducted in conjunction with the Catholic Schools Office, Armidale (with Dr Riley, then of the CSO, acting as project coordinator), addressed the issues of (i) identifying gifted and talented students, including underachievers, in rural and isolated communities, and (ii) increasing the knowledge and confidence of parents of gifted and talented students in such communities. The production of some form of multi-media information kit for use by parents was one expected outcome of this project. Data were collected through interviews with parents from a variety of rural settings and representing a variety of family patterns.

Gifted and talented indigenous students  (Completed)

Abstract...

This project, undertaken at the request of the Catholic Schools Office, Armidale, investigated (i) methods of identifying high academic and creative potential in Indigenous school students, and (ii) how best to provide inservice education to teachers in the Armidale Diocese on curriculum enrichment for such students. Identification methods trialled included teacher nomination using checklists, a non-verbal general ability test (Raven's Progressive Matrices), and a visual discrimination test devised by one of the participants. The inservice model explored involved the use of experts in gifted education and Indigenous education, dialogue with Indigenous elders, teachers and parents, visits to sites of cultural significance (in the Walgett district) and the production of culturally appropriate enrichment materials for use and evaluation in participants’ schools.
A longitudinal exploration of individual differences in the acquisition of geometric competencies  (Completed)

Abstract...
This three-year project traced students’ geometrical knowledge from Years 3 to 11 in primary and secondary schools in Armidale.

Identifying and interpreting Year 12 performance outcomes for mathematics courses in NSW.  (Completed)

Abstract...
This three–year project determined population percentages (or benchmarks) of student performance in several topic areas examined in the HSC Mathematics courses in N.S.W. One important outcome of the research was to establish a realistic framework that would allow future developments in assessment in terms of theoretically-based course performance descriptors.

An analysis of cognitive processing used in solving open-ended and extended investigations in school geometry  (Completed)

Abstract...
This project analysed structures of cognitive processing evident when students undertake open or extended geometrical investigations. A cognitive model used to describe the mental structures of students’ responses in terms of a set of well-validated descriptors is to be applied to protocols of solution attempts, which have been carefully parsed into macroscopic chunk. This provided fine detail of students’ sequential cognitive processing.

Improving students learning - foundation studies in biology  (Completed)

Abstract...
This project represented a first attempt to bring together lecturers and demonstrators of Foundation Units in Biology for internal students, one of the largest service units in the Faculty of The Sciences, with members of CRiLT. The aim of the project was to develop a consistent program of study for students as well as improve the professional knowledge base of staff so that they are more able to address learning issues faced by students in these units.

Supporting demonstrators in first-year Biology  (Completed)

Abstract...
This project continued the close collaboration developed in an earlier UNE Teaching Development Grant (awarded in 1999). Once again there was cooperation between the lecturers and demonstrators of Biological Sciences 110, one of the largest service units in the Faculty of the Sciences, and members of CRiLT. The purpose was to develop, implement, and evaluate new approaches to teaching and assessment through the construction of a Handbook.

Mathematics and Technology  (Completed)

Abstract...
Assisting rural teachers to acquire skills using graphics calculators

van Hiele Theory - 3D geometry project.  (Completed)

Abstract...
Identifying development pathways for primary/secondary students in learning 3D geometry. Joint research in Australia and Spain.
Disadvantaged and culturally different gifted and talented  (Completed)

Abstract...
Identification of, and provision for, gifted and talented Indigenous students. In partnership with the Armidale Catholic Schools Office.

Uzbekistan Delegation Visit to NSW, Australia  (Completed)

Abstract...
It is proposed that the study tour participants have discussions with education officials and practitioners, and visit institutions. Areas of interest are:
- Decentralisation of education (policies, structures, roles and responsibilities at each level);
- Education reform policies and their implementation;
- Monitoring of education reforms and education in general;
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- The relationships between educational institutions and local employers;
- Ways in which higher education institutions determine enrolment;
- Child-centred and active learning approaches in use in primary and secondary schools;
- Distance education and tertiary level of education;
- Donors co-ordination in education.

A Longitudinal Study of Improvements in Literacy and Numeracy  (Completed)

Abstract...
University Research Grant for 2002

QuickSmart Consultancies  (Completed)

Abstract...
The QuickSmart Project has been running in schools from the Armidale Diocese and at the New England Girls School during 2002 and 2003.

QuickSmart Services  (Completed)

Abstract...
Computer-based Academic Assessment System (CAAS) assessments and individual profile programming in basic academic skills are available as QuickSmart Services for students with learning difficulties.

Assessing geometrical understanding in the middle school [Years 5-8]  (Completed)

Abstract...
This project is concerned with the development of geometry assessment items for years 5-8 within the Catholic Education System in Victoria. It is part of a larger project [Success in Numeracy Education - SINE] funded by the Catholic Education Commission of Victoria.

A preliminary investigation into the effectiveness of the National Coach Accreditation Scheme  (Completed)

Abstract...
In 1980, the National Coaching Accreditation Scheme (NCAS) was formed. The primary aim of the scheme was to provide a national focus for the development of coaches. Currently, over 93,000 coaches are accredited across 139 sports, with thousands more coaches having passed through the NCAS since its incep
As the NCAS has evolved, a variety of evaluations and reports have been undertaken to assess the effectiveness of various aspects of the scheme. However, no single investigation has sought to answer a most fundamental question regarding the scheme, that is, has the NSAC produced better coaches? As such, this study was formulated to provide an insight into this aspect of the NCA.

In conjunction with consultants from the Sport Education Section (SES) of the Australian Sports Commission (ASC), a pilot study was conceived to address the following question.
1. Why do coaches undertake NCAS accreditation?
2. What are the main benefits of undertaking NCAS accreditation?
3. Do respondents perceive that the NCAS has led to improvements in coaching?
4. How can the NCAS be improved.

The significance of the findings can be grouped into two broad areas. Firstly, the findings provided insight into the benefits of formalised accreditation. The study was able to reveal that coaches (and their players) observed notable improvements in coaching techniques and practices. Similarly, coaches perceived extrinsic benefits from accreditation such as increased status within their sport, and possibility advancement in their coaching career. As a consequence of this first finding, it has become clear that the NCAS ‘value adds’ to coaches skills and techniques. This second finding is important to the ASC and national sporting organisations, as they make substantial financial contributions to formalised coach development.

Exporation of the National Science and Mathematics Examination for Grades 6, 9 and 12 in East Timor  (Completed)

Abstract...

The Ministry of Education, Culture, Youth and Sport is aware of the importance of national examinations in raising educational standards in East Timor and as a result has been keen to strengthen its technical capacity to prepare examination papers, administer the examinations, and process the examinations data. The focus of this research was to review the current practices in the conduct of national examinations, including the analysis and reporting of student performance, along with the quality of the science and mathematics papers being used with students.

Numeracy research in New South Wales primary schools: A professional journey  (Completed)

Abstract...

This project involved a yearlong research project involving a sample of ten primary schools, wishing to improve significantly their current ‘profile’ of student numeracy outcomes. These schools were required to trial a range of strategies that were found to be ‘making a difference’ to numeracy.
Overseas Research Consultancies

Displaying records 1 through 20 of 20 records found. (20 records displayed).
Click on name of project to view details

Assessment in a technology environment  (Ongoing)

Abstract...
Assessing the value of state-of-the-art technology developed by the NASA "Classroom of the Future" to teach science using the SOLO model.

Review of the Examination System in Hong Kong  (Completed)

Abstract...
A six-part research consultancy to investigate the examination system in Hong Kong.

Recovery Phase in Afghanistan-Education.  (Completed)

Abstract...
During 2001, Dr Ken Vine and Ms Cathy Vine were engaged by UNICEF to provide specialist advice on computer-based Education Management Information Systems (EMIS). The task was to provide consultancy advice and conduct a technical workshop on the participatory design of an EMIS for UNICEF, UNESCO and a consortium of NGOs providing education services in Afghanistan and in Afghan refugee villages in Pakistan and Iran.

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Impact of INSET in Bhutan and development of a seven year plan.  (Ongoing)

Abstract...
This project was completed following a highly consultative model in which development of in-country knowledge and expertise was considered an essential part of the project. The project arose from key educators’ concerns about the value that the inservice (INSET in Bhutan) dollar was providing the Bhutanese education system. However, the impact of INSET had to be considered against the remarkable gains made by the education system and the tensions created by the desire for universal suffrage and the provision of adequately qualified teachers.

Assessment of the Education for All:2000 project in Turkmenistan  (Completed)

Abstract...
The assessment project has been encouraged by all the major sponsors of EFA 2000 in an attempt to determine progress on a number of quantitative indicators that focus on quality, access and equity issues common to most education systems.
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Problems and Issues in Implementing a Computer-based EMIS in Turkmenistan (Ongoing)

Abstract...
The aim of the project is to assist the Government of the Republic of Turkmenistan to streamline the collection and processing of data in its educational system.

Uzbekistan Delegation Visit to NSW, Australia (Completed)

Abstract...
It is proposed that the study tour participants have discussions with education officials and practitioners, and visit institutions. Areas of interest are:
- Decentralisation of education (policies, structures, roles and responsibilities at each level);
- Education reform policies and their implementation;
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- Ways in which higher education institutions determine enrolment;
- Child-centred and active learning approaches in use in primary and secondary schools;
- Distance education and tertiary level of education;
- Donors co-ordination in education.

Improving student learning outcomes in secondary mathematics and science: An exploration of lesson components used by exemplary teachers  (Ongoing)

Abstract...

The aim of this research is to explore and analyse lesson structures used by teachers who obtain outstanding educational outcomes from their secondary students in Mathematics and Science.

Exploration of the National Science and Mathematics Examination for Grades 6, 9 and 12 in East Timor  (Completed)

Abstract...

The Ministry of Education, Culture, Youth and Sport is aware of the importance of national examinations in raising educational standards in East Timor and as a result has been keen to strengthen its technical capacity to prepare examination papers, administer the examinations, and process the examinations data. The focus of this research was to review the current practices in the conduct of national examinations, including the analysis and reporting of student performance, along with the quality of the science and mathematics papers being used with students.
Post-Graduate

Ph.D. Theses

Mathematics Education

- A Longitudinal Investigation into Children's Understanding of Number Patterns and the Consequent Emergence of Algebraic Concepts. Redden, E., 1995.
- An Investigation Into the Assessment of Students' Van Hiele Levels of Understanding in Geometry. Lawrie, C., 1998

Science Education


Gifted and Talented Education


Cognition

- Cognitive Abilities and Instructional Treatments in a Reasoning Unit for Senior Primary School: A Study of Aptitude Treatment Interaction. Woodley, C.E., 1993

SOLO

- A Longitudinal Investigation into Children's Understanding of Number Patterns and the Consequent Emergence of Algebraic Concepts. Redden, E., 1995.
van Hiele


Piaget/Troica


Music Education


Physical Development, Health and Physical Education


Cross-Curricular Issues

- Attributes, Learning Preparedness and Study Disposition of Adult Vocational Distance Learners at the University of the South Pacific as Influenced by their Personal, Situational and Study Environments. Tuimaleali'ifano, E.J., 1996.

Tertiary Education

- Attributes, Learning Preparedness and Study Disposition of Adult Vocational Distance Learners at the University of the South Pacific as Influenced by their Personal, Situational and Study Environments. Tuimaleali'ifano, E.J., 1996.

School Administration

M. Ed. Theses (Hons)

**Mathematics, Science, IT/Computing, Cognition, Creative Arts, Distance**

- **Mathematics Education**
  - An investigation into the understanding of the basic concepts of analytical geometry. Cauchi, R. 1995. M. Ed. (Honours)

- **Science Education**
  - Literacy and Learning in the Science Classroom. Sturgiss, J. 1996. M.Ed. (Honours)

- **Information Technology / Computing**

- **Cognition**
  - SOLO
  - An investigation into the understanding of the basic concepts of analytical geometry. Cauchi, R. 1995. M. Ed.
  - van Hiele

- **Piaget/Troica**

- **Creative Arts Education**
  - Creative Drama and Personal Development: An Inquiry into Drama in Education and Development of Self. Wright, P.R. 1996 M. Psych (Edu)

- **Distance Education**
Bachelor of Education Theses (Hons)


Gifted and Talented Education
- An Exploration of the Peer Status and Self-concept of Grade Skipped Primary Students. Batt, D. 1997 BEd(Hons)

Mathematics Education
- An Investigation into the Effectiveness of Teaching Specific Problem Solving Strategies on Problem Solving Achievement. Campbell, T. 1996 BEd(Hons)
- Exploring diversity in young children's responses to questions concerning simple 2D shapes. Whitland, J. 2000 BEd(Hons)

HISE
- Investigation into the Effectiveness of Spaceship Earth as an Environmental Education Program. Eggins, K. 1996 BEd(Hons)

Science Education

Cognition

SOLO
- Exploring diversity in young children's responses to questions concerning simple 2D shapes. Whitland, J. 2000 BEd(Hons)

van Hiele
- Exploring diversity in young children's responses to questions concerning simple 2D shapes. Whitland, J. 2000 BEd(Hons)

Personal Development, Health, Physical Education
- Age Appropriateness for the Acquisition of Specific Rugby League Skills in Primary School Children. Semmlar, A. 1994 BEd(Hons)
- Family Relationships of Motor Impaired Children: A Parent's Perspective: Multiple Case Study. Sprinkle, J. BEd(Hons)

Music Education
- An Investigative Inquiry of Children's Invented Representations of Four Simple Monophonic Rhythms. Stephens, F. 1997 BEd(Hons)
Links

General Educational Research Sites | Journals | P.D., H., P.E. | Mathematics/Computing | Science | Creative and Performing Arts | Educational Administration |

The University of New England, Australia

School of Curriculum Studies, UNE, Australia

Search Engines (Exeite Yahoo Alta Vista Web Wombat Netsearch)

Educational Research Sites

Northwest Regional Educational Library (US)
The Northwest Regional Educational Laboratory's mission is to improve educational results for children, youth, and adults by providing research and development assistance in delivering equitable, high-quality educational programs. NWREL provides research and development assistance to education, government, community agencies, business, and labor.

Centre For Research in Mathematics Education - Southampton crime.html
The Centre for Research in Mathematics Education (CRIME) is a research centre in the School of Education, University of Southampton, United Kingdom.

Centre for Science, Mathematics and Technology Education (US)
To serve as the focal point for the program development and research aimed at fostering improvements, innovations, and reforms in science, mathematics, and technology instruction and curriculum at all levels, K-16.

NCTM
For more than 75 years, the National Council of Teachers of Mathematics (NCTM) has been dedicated to improving the teaching and learning of mathematics. It is a recognized leader in efforts to ensure an excellent mathematics education for all students and an opportunity for every mathematics teacher to grow professionally.

ERIC : Ask ERIC
The Clearinghouse is a component of the Educational Resources Information Center, sponsored by the U.S. Department of Education. Our goal is to provide access to the best information available for teaching and learning about science, mathematics, and the environment.

Pedagogical Language Usage Server
A dictionary of education in which you can browse or search for educational terms as used by educational researchers in journals affiliated with the American Educational Research Association (AERA) and see how they are used (or defined) in the context of research literature.

CRESST Homepage
Funded by the U.S. Department of Education and the Office of Educational Research and Improvement, the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) conducts research on important topics related to K-12 educational testing.

National Educational Research and Development Centers (US)
To address nationally significant problems and issues in education, the U.S. Department of Education's Office of Educational Research and Improvement, through its five National Institutes, supports university-based national educational research and development centers. The centers address specific topics such as early childhood development and learning, student learning and achievement, cultural
and linguistic diversity and second language learning, postsecondary improvement, adult learning, and education policy. In addition, each center has collaborating partners, and many work with elementary and secondary schools as well as postsecondary institutions. Centers may be contacted directly for a catalog of their publications and services.

**Wisconsin Center for Educational Research**

A US based center dedicated to improving student learning and achievement.

**US Regional Education Laboratories**

The Regional Educational Laboratory Program (the "Lab Program") is the U.S. Department of Education's largest research and development investment designed to help educators, policy makers, and communities improve schools and help all students attain their full potential. The labs work to ensure that those involved in educational improvement at the local, state and regional levels have access to the best available research and knowledge from practice. The Labs also want to ensure that information about exemplary and promising programs as well as other important lessons about school reform developed or learned in one site can be appropriately applied elsewhere.

**SDE**

One of America's Leading Providers of Professional Development Resources for K-8 Educators.

**National Clearinghouse for Comprehensive School Reform**

A good site for those interested in school reform.

**Asia Pacific Educational Research Association**

Kluwer Academic Publishers is a member of the Wolters Kluwer International Health & Science group of companies, providing the highest quality information products and services to academic and corporate researchers in life sciences, humanities & social sciences, environmental & plant sciences, physical sciences, biomedicine, behavioral sciences, engineering and international law.

**Curriculum Trends across Australia in 2000 - State by State**

The ACACA Compulsory Years Group was established in 1998 to provide an Australian forum for the consideration of curriculum, assessment and certification issues in the compulsory years of schooling. A survey seeking information on aspects of the curriculum in the compulsory years was distributed to each state and territory in Australia. The survey results were published by the Board of Studies NSW for the Australian Curriculum, Assessment and Certification Authorities (ACACA).

**Leaving School in Australia - Year 12 State by State A guide to Year 12 Certificates and Tertiary Entrance**

Requirements in Australia, published by the Board of Studies NSW for the Australian Curriculum, Assessment and Certification Authorities (ACACA), this document summarises the types of subjects, courses and various methods of assessing and reporting student achievement in each of the eight public education systems in Australia.

**EdResearch Online**

The EdResearch Online database is updated once a month with those records from the Australian Education Index that are available online, whether for free, or a fee, and can be freely searched.

**Journals**

Educational Psychology (US)

**JRME**

Journal for Research into Mathematics Education.

**Journals published by Wiley** (you may need to be a member of UNE for access).

A good selection of journals spanning many areas.

**Australian Journals Online**

Australian Journals Online is a listing of over 1,700 Australian electronic journals, magazines, webzines, newsletters and e-mail fanzines. It includes both local and overseas works with Australian content, authorship and/or emphasis as well as entries for sites which advertise or promote Australian journals.

**Teacher's College Record**

The Teachers College Record itself is a great (free) resource with links to a whole raft of other sites (click on home). Also contains links to other journals.
Personal Development, Health and Physical Recreation

Australian Sports Commission - Sports Periodicals
ABC Radio National - "The Health Report"
Search this site for transcripts of radio programs by topic.

American Society of Exercise Physiologists
Exercise Physiology Related Journals

Rob Wood's Home of FITNESS TESTING
A site where you can do your own fitness testing online.

US National Library of Medicine
A site where you can search for publications in this area.

The Dyspraxia Association of Northern Ireland
Australian Council for Health, Physical Education and Recreation Inc. (ACHPER) Lesson Plans for P.D., H. & P.E.
Physical Education & Health Lesson Plans, Ideas, and Activities

The Sports Library
This page contains a set of links to sports information that may be of special interest to sports researchers. The list is not intended to be a comprehensive index of sports-related sites. The following sites are sources of sport information that we find particularly helpful when answering reference questions regarding participant, scholastic, collegiate professional and Olympic sports.

Feature articles on "Gymnastics" on the Internet
Believe it or not, gymnastics is spreading over the Internet faster than a virus. There are so many new sites, in fact, that it would take the average gym fan at least a full day to look through them all. While most web pages are pleasant in appearance, with some photos and colorful graphics, a handful are not only aesthetically pleasing, but also informative, creative, and extremely entertaining.

Mathematics/Computing

JRME
Journal for Research into Mathematics Education.

Centre For Research in Mathematics Education - Southampton crime.html
The Centre for Research in Mathematics Education (CRIME) is a research centre in the School of Education, University of Southampton, United Kingdom.

Centre for Science, Mathematics and Technology Education (US)
To serve as the focal point for the program development and research aimed at fostering improvements, innovations, and reforms in science, mathematics, and technology instruction and curriculum at all levels, K-16.

NCTM
For more than 75 years, the National Council of Teachers of Mathematics (NCTM) has been dedicated to improving the teaching and learning of mathematics. It is a recognized leader in efforts to ensure an excellent mathematics education for all students and an opportunity for every mathematics teacher to grow professionally.

The Centre for Studies in Science and Mathematics Education
The Centre for Studies in Science and Mathematics Education at Leeds University is very well regarded in the science education field.

Mathematical Sciences Research Institute
The Institute, at Berkeley CA, aims to further mathematical research, through presenting programs and workshops, hosting post-doctoral training and focussing on communicating mathematical sciences to scholars and the general public. This site provides information on MSRI activities, news, facilities and publications.

Research Group in Mathematical Inequalities and Applications (RGMIA)
The Research Group is comprised of academics and researchers from Australia, Asia, Africa, Europe and North America. Its aims are to: disseminate results via publication and conferences, create an awareness of the theory of inequalities and support seminars and visiting academics, illustrate the applicability of inequalities in the sciences. Site features include research reports, papers, discussions and an online journal.

**Maths 300**

A web-based service which aims to support teachers in the delivery of mathematics education. It aims to resource members with extensive notes for exemplary maths lessons (K-12). The search engine allows teachers to search for lessons by curriculum strand, content and year level. Lessons plans can be downloaded or printed directly from the site.

**Australian Mathematical Society**

This site contains information about the society, its publications and conferences, as well as general information of interest to mathematicians in Australia and overseas. Also provided are links to related organisations and resources.

**Gary Clark's Home Page**

Gary is a lecturer in Mathematics and Information Technology in Education at the University of New England in Armidale NSW Australia. His site contains interesting links to site in this area.

**AAMT**

The Australian Association of Mathematics Teachers is the nation's premier organisation of mathematics educators:

- Supporting and enhancing the work of teachers
- Promoting the learning of mathematics
- Representing and promoting interests in mathematics education

**British Society for Research into Learning Mathematics**

Its members are researchers in mathematics education at all levels at which mathematics is learned and taught. This includes teacher-researchers - those who are doing research into aspects of mathematics learning or teaching in their own classroom, school or other institution. The society acts as a major forum for sharing research in mathematics education in the United Kingdom. It is open to and welcomes membership from anyone involved or interested in mathematics education. It is both an environment for supporting new researchers and also a forum for those more established. Mathematics education is understood, broadly, to include the teaching and learning of mathematics and the social context in which this occurs. This includes psychological, philosophical, sociological, cultural, historical, linguistic, methodological or other aspects or perspectives of the teaching and learning of mathematics. The society holds three day-conferences during the year, usually on a Saturday, in February, May and November, at which members make presentations from their research. Such meetings also include working groups and discussion groups relating to many areas or aspects of mathematics education. Working groups have an ongoing programme of work that is not limited to one conference. Occasionally there are special meetings arranged for research students, although students are welcome to present alongside other members at all conferences. All members receive copies of the (informal) proceedings of conferences. Extended versions of conference papers can be submitted for review for inclusion in an annual collection of BSRLM Papers, which members receive.
Science

Centre for Science, Mathematics and Technology Education (US)
To serve as the focal point for the program development and research aimed at fostering improvements, innovations, and reforms in science, mathematics, and technology instruction and curriculum at all levels, K-16.

NASA Classroom of the Future Center for Educational Technologies at Wheeling Jesuit University, USA

Journal of Research in Science Teaching
Note: When searching in JRST, if you are searching for a particular article, do a search in (UNE Library Electronic Resources) ERIC or Expanded Academic ASAP, get the citation, then look up the required journal in JRST.

Science Education
Note: When searching in SE, if you are searching for a particular article, do a search in (UNE Library Electronic Resources) ERIC or Expanded Academic ASAP, get the citation, then look up the required journal in SE.

IF YOU ARE HAVING TROUBLE ACCESSING JRST OR SE, GO DIRECTLY TO THE UNE LIBRARY WEB SITE, THEN ELECTRONIC RESOURCES, THEN ELECTRONIC INDEXES AND JOURNALS, THEN WILEY INTERSCIENCE, THEN EDUCATION.

Nature
International weekly journal of science.

Ecos - CSIRO
The environment... You're part of it, but how do you know where you stand? How do we know what's best for the environment, and what can be done to help? Read Ecos and find out.NOT Full Text

Creative and Performing Arts

Centre for Applied Theatre Research
A site for innovative development in International Theatre Education.

National Endowment for the Arts
National Arts Education Research CentreA number of informative research reports have resulted from the New York University and the University of Illinois (Champaign-Urbana) sites of the National Arts Education Research Center. Through co-funding by the National Endowment for the Arts and the U.S. Department of Education beginning in 1987, the Center pursued studies on a wide variety of topics relevant to arts education.

Association for the Advancement of Arts Education
Our review of hundreds of research studies, program evaluations, and research analyses conducted since 1983 provides recent compelling evidence that we must include the arts in the education of all students if we want our children to be prepared for the challenges of life and work in our global society. The challenges of today, and most certainly of tomorrow, require the abilities, skills, habits, and knowledge that education in the arts is uniquely able to provide.

Educational Administration

ICP Online
ICP Online is the official Internet website of the International Confederation of Principals. The website aims to be a useful professional resource, and an information and ideas sharing forum for all school leaders, in every country.
Appendix A – Sample Project Details

**Motor proficiency instrument for the Australian population**

**Project Title**  
Motor proficiency instrument for the Australian population

**Project Team Leader**  
Judy Miller

**Abstract**  
This project is concerned with the broad spectrum of motor proficiency in terms of all typically developing primary aged children. In addition, focus is on those children exhibiting coordination difficulties. This research is based on evidence from a doctoral study and is in response to the need for further investigation of the integrity of the American norms of a motor proficiency instrument, the McCarron Assessment of Neuromuscular Development (MAND).

**Duration**  
2003 2004

**Areas of Expertise**  
Assessment and Teaching  
Physical Education

**About the project**  
This project seeks to provide Australian Norms for an American Motor Proficiency Instrument. The McCarron Assessment of Neuromuscular Development (McCarron, 1982) is an instrument that measures the coordination level of individuals from five-years of age to adult. The instrument has ten test items and they are classified as either fine or gross motor tasks.

The lack of reliability of the instrument to accurately measure Australian children has emerged from current PhD studies. This project began in early 2001 and was a cross-institutional research project.

**Funding & grants**  
The first project has received three Internal Research Grants from the FEHPS:  
* 1996 IRG Project Funding: $2,725  
* 1997 IRG Project Funding: $2,000

An Investigation Of Motor Skill Acquisition within Three Levels Of Coordination Of Primary Aged Children:  
* 1998 IRG Project Funding: $2,725

**Other Links**

**Publications**

Motor proficiency instrument for the Australian population is not completed