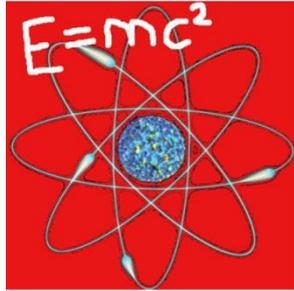


Science-ercise

Transforming the way we teach Science in schools



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Transforming
the way we teach
Science in schools



Parent/Guardian Information Sheet

Science-ercise: modern physics in primary classrooms of North & North-West Tasmania

We hope you will accept our invitation and allow your child/ward to participate in **Science-ercise: introducing physics to the primary-school classroom.**

This project is being conducted by AMC student Stephanie Zank as part of her Master in Philosophy program. Her supervisors are Dr. Andrew Fluck, Professor Dev Ranmuthugala and Dr. Chris Chin. Our research is funded by a grant from the Ian Potter Foundation T1 Project 105412.

North & North-West Tasmania is a centre for hi-tech engineering with 12.2% of the population employed in the manufacturing sector (ABS, 2011). However, Australia is facing a critical shortage of engineering, **science** and mathematics graduates (Goldsworthy 2008). The shortage has been most acute in engineering with declining enrolments. Is it possible to reverse this trend by changing the way science is taught in schools, using new technology early in the learning cycle? We believe it is.

Your child/ward's participation guide:

- *Your child/ward's school has been selected for its demographic similarity to participating schools in a previously successful research study that introduced calculus and higher maths skills into the primary school curriculum. We are now exploring the combination of basic physics concepts with the Australian National Curriculum criteria and the use of targeted ICT skills to enhance science and physics awareness.*
- *This project will introduce modern physics and its everyday use to primary school students and inspire them to undertake science and engineering in the future.*
- *Your child/ward's anonymity will be preserved. Student data will be non-identifiable and all individual student identifiers will be removed.*
- *All data collected will be collected, preserved, stored and disposed of according to strict University of Tasmania ethics guidelines.*
- *After all data is analysed, student achievements will be returned to class with a summary of class participation as a community report (suitable for school newsletter) returned to the principal.*

Benefits & Risks:

Benefits include added interest on the part of some students in the professions of science, technology engineering and mathematics fields.

We foresee no discernable risks for your child/ward as all participation is both informed and voluntary. Your child/ward may withdraw their consent to participate at any time and any data collected from them will be deleted. Should any students suffer minor performance stress they are free to decline participation at any time.

This study has been approved by the Tasmanian Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 6254 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number **H14216**.

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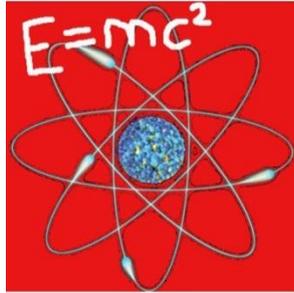
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Please keep this information sheet for future reference. If you have any questions or concerns please call or email any of our UTas team. We will be glad to address any and all issues and inquiries.

Dr. Andrew Fluck	(03) 6324 3284	Andrew.Fluck@utas.edu.au
Professor Dev Ranmuthugala	(03) 6324 9474	D.Ranmuthugala@utas.edu.au
Dr. Christopher Chin	(03) 6324 9441	C.Chin@utas.edu.au

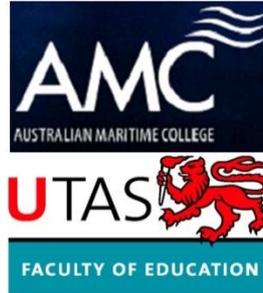
If you will permit us to work with your child/ward please complete the following Parent/Guardian Consent form and return it to any of the Science-ercise team members above. Thank you

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Parent/Guardian Consent Form

Science-ercise: modern physics in primary classrooms of North & North-West Tasmania

1. I give permission for my child/ward to take part in the research study named above.
2. I have read and understood the Information Sheet for this study.
3. The nature and possible effects of the study have been explained to me.
4. I understand that the study involves introducing primary-school students to physics curriculum using computer enhanced learning methods.
5. I understand that participation involves minimal risk to my child/ward. Should my child/ward experience performance anxiety at any time regarding this project, they may withdraw with no deleterious effects or repercussions.
6. I understand that all research data will be securely stored on the University of Tasmania premises for five years from the publication of the study results, and will then be destroyed.
7. Any questions that I have asked have been answered to my satisfaction.
8. I understand that the researcher(s) will maintain confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research.
9. I understand that the results of the study will be published so that my child/ward cannot be identified as a participant.
10. I understand that my child/ward's participation is voluntary and that I may withdraw my permission for their participation at any time without any effect.
If I so wish, I may request that any data I have supplied be withdrawn from the research until 31/12/2017.

Parent/Guardian name: _____

Parent/Guardian of child: _____

Parent/Guardian signature: _____ Date: _____

Statement by Investigator

I have explained the project and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

If the Investigator has not had an opportunity to talk to participants prior to them participating, the following must be ticked.

The participant has received the Information Sheet where my details have been provided so participants have had the opportunity to contact me prior to consenting to participate in this project.

Investigator's name: _____

Investigator's signature: _____ Date: _____