# Powerful Knowledge:

# Mapping out Standards of Teachers’ Knowledge for Teaching Mathematics and English to Achieve the Goals of the Curriculum

Information for Teachers

## Invitation

You are invited to participate in a project of national significance aimed at identifying teacher knowledge across the years of schooling in the key areas of Mathematics and English. The study is being led by Associate Professor Rosemary Callingham of the School of Education at the University of Tasmania (UTAS). The research team comprises of Professors Kim Beswick and Ian Hay, and Associate Professor Helen Chick, , all from the School of Education at UTAS, as well as Professor Tom Nicholson from the Institute of Education at Massey University, New Zealand. The project is funded by the Australian Research Council (ARC) through the Discovery Grants Scheme (DP130103144).

## What is the purpose of this study?

This project has seven specific aims, with the research falling into three phases, across three years. The aims of the larger project are:

1. To identify key aspects of teachers’ knowledge for teaching Mathematics and English;
2. To establish benchmarks for teachers’ knowledge for teaching Mathematics and English;
3. To identify similarities and differences in teachers’ knowledge for teaching between the two subject areas of Mathematics and English;
4. To develop a variety of instruments to measure this knowledge in ways that allow teachers at all levels of schooling to demonstrate appropriately their knowledge for teaching Mathematics and English;
5. To determine how the key aspects of teachers’ knowledge for teaching Mathematics and English change across levels of schooling;
6. To determine how the key aspects of teachers’ knowledge for teaching Mathematics and English change as teachers move through stages of experience; and
7. To explore sustainable ways in which teachers’ knowledge might be developed.

We are currently in Phase 2 of the study. Phase 1 identified important aspects of knowledge for teaching (KfT) in Mathematics and English, and developed instruments to measure these constructs. Phase 2 involves validating these instruments which will be done by a combination of surveys, stimulated journal entries and/or professional scenarios. There may be opportunities to participate again in Phase 3 (2015) when the project trials the instruments developed in Phases 1 and 2. This information is to help you decide whether you would like to participate in Phase 2.

## Why have I been invited to participate?

You are invited to participate in this study because you are a teacher or are a final year pre-service teacher. Teachers from a range of teaching levels are invited to participate; this includes Early Years teachers, Primary, Middle, Lower Secondary and Upper Secondary, from all career stages.

Participants in this phase of the study have been recruited by contact from professional teaching networks and associations, who have contacted their members or otherwise advertised the study on behalf of the project team, or via previous participation in the study.

Your involvement in this study is voluntary, and there are no professional or personal consequences should you decline to participate.

## What will I be asked to do?

You are asked to complete an online survey about Teachers’ Knowledge for Teaching Mathematics or English. You may, if you wish, undertake both surveys. The survey will take a maximum of 1 hour to complete and generally it would be expected to take a lot less time. The survey will ask about your teaching experience and some other background information, your beliefs about teaching mathematics or English, your knowledge of the subject and the pedagogical knowledge that you bring to the subject in the classroom.

The survey will be provided to you via a unique link to a website. At the end of the survey, you will be asked if you would like to participate in other aspects of the research. If you agree to participate further, you will be directed to another website. This will ensure that your survey responses are kept confidential from other information.

The two other components that you may wish to undertake are described below.

*Stimulated Journal Entry*

You will be emailed a link to online questions periodically, for a written response within two weeks of receiving the question. These will ask you to reflect on a recent lesson or unit of work and to respond to some specific questions. In total, three stimulus questions will be asked at intervals of approximately six weeks. Some information about what lesson you are reflecting on will be collected to provide context to your reflection. The expectation is that professional scenarios and journal keeping will take no more than60 minutes in total.

*Professional Scenarios*

Three professional scenarios posing professional dilemmas relating to the teaching of English or mathematics will be provided and you will be asked to respond to questions about these. The scenarios may be used for discussion during staff meetings or with colleagues. These will be available online.

## Are there any possible benefits from participation in this study?

Your participation in this study has the potential benefits of:

* In-depth discussion with colleagues about important teacher practices and knowledge
* Sharing of teaching experiences and stories
* Exposure to stimulus material that you may choose to use or adapt in your own classroom
* Reflection on your own content knowledge and teaching strategies
* Contribute to an understanding of sustainable ways of developing teachers’ knowledge
* Contribute to the development of a national standard of teacher education and associated benchmarks

## Are there any possible risks from participation in this study?

There are no specific risks anticipated with participation in this study.

## What if I change my mind during or after the study?

Although we would be pleased to have your participation, we respect your right to decline. There will be no consequences to you if you decide not to take part. All information will be treated in a confidential manner, and neither your name nor any other identifying information will be used in any publications arising from the project.

You may withdraw at any time without any consequences until the survey has been submitted data analysis has commenced. At this point it may not be possible to withdraw your information because any specific identifiers will be removed.

## What will happen to the information when this study is over?

Your information will be treated confidentially. All of the data will be kept in password protected computer files on secure servers for electronic data, and in locked cabinets for hard-copy data, at the University of Tasmania for a minimum of five years from the date of first publication pertaining to the study and then destroyed.

## How will the results of the study be published?

This is a nationally funded study. There will be progress reports and a final report to the Australian Research Council. In addition, the project team will report to professional associations, either at conferences or through journals and newsletters. It is anticipated that a number of academic and professional scholarly papers will be written and that there will be presentations at national and international conferences.

Individuals who have participated in the study will not be identified in any publication or presentation.

## What if I have questions about this study?

Please keep these details handy should you want to contact someone about this research. You are welcome to contact members of the research team at any time with any questions you may have.

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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 (03) 6226 7479 or email [human.ethics@utas.edu.au](mailto:human.ethics@utas.edu.au). The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0013090.

**To participate:**

Please click on the unique link provided to you which includes the consent form to which you are required to agree before proceeding with the survey.

Thank you for taking the time to consider this study.

Primary English:

<http://tinyurl.com/m3ffmwy>

Primary Mathematics:

<http://tinyurl.com/m6lbvjx>

Secondary English:

<http://tinyurl.com/mgh9p3z>

Secondary Mathematics:

<http://tinyurl.com/n4kugvz>

**This information is you to keep.**

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