

20 March 2019

Dear Parents

### Year 7 - Pilot STEM Project

In conjunction with Sydney University STEM Academy, Covenant Christian School is embarking on a pilot STEM program for Year 7. To help us understand and measure the impact of this program we would like to collect some data before, during and after implementation.

Science, Maths and TAS departments have been working together, with support from the STEM Academy, to design a cross discipline program that will investigate our impact on our local watershed. It will be called "Year 7 – Survivor Northern Beaches".

Sydney University, in return for their support and funding, would like to use some of our data to support their research into STEM education.

Attached are documents that we would like you to complete to enable us to collect data.

The documents are:

1. Student Participation Information Statement
2. Parent/Carer Participation Information Statement
3. Parent/Carer and Student Consent form

Could you please complete these and return them to your child's Science teacher by **Friday 29 March**.

Thank you for your support in this exciting project.

Yours in Christian education

Mrs J Wright  
Science Teacher/STEM Project Leader

Mr J Trevaskis  
Director of Teaching & Learning

Mr T Hewitt  
Deputy Principal Curriculum (7-12)



ABN 15 211 513 464

**CHIEF INVESTIGATORS: Dr. Deborah Tully**  
*Vonwiller Post-Doctoral Research Fellow;*  
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## **The School-Wide Impact of the STEM Teacher Enrichment Academy on Principals, Teachers, Students and Parents**

### **Student PARTICIPATION INFORMATION STATEMENT**

We are doing a research study to find out more about your interest in STEM and what your thoughts are towards Science, Mathematics, Technology and Engineering. We are asking you to be in our study because you are taking STEM subjects at your school with teachers who attended the STEM Teacher Enrichment Academy through the University of Sydney.

You can decide if you want to take part in the study or not. You don't have to - it's up to you.

This sheet tells you what we will ask you to do if you decide to take part in the study. Please read it carefully so that you can make up your mind about whether you want to take part.

If you decide you want to be in the study and then you change your mind later, that's ok. All you need to do is tell us or your teacher that you don't want to be in the study anymore.

If you have any questions, you can ask us, your teachers, your family or someone else who looks after you. If you want to, you can call us any time on the phone number listed above..

#### **What will happen if I say that I want to be in the study?**

- ✓ You will be asked to complete a questionnaire that will take about 10-15 minutes. You won't need to write anything, just tick boxes about how you feel today.
- ✓ You will complete the questionnaire at school during class time.
- ✓ You will be asked to complete the questionnaire twice. Once before you begin your STEM classes and once later in the school year after you complete your STEM classes. That way we can see if you might feel differently about those subjects after participating in the STEM classes.

- ✓ Your teacher will hand out and collect the surveys during class time.

If you decide that you want to be in our study, we will ask you to take a 10-15 minute survey during class time, at 2 different times during the school year

When you take the survey, if you don't want to answer something, that's ok.

**Will anyone else know what I say in the study?** No, since we don't ask you to tell us your name when you take the survey. Your responses are anonymous. All of the information that we have about you from the study will be stored in a secure place and we will look after it very carefully. We will write a report about the study and show it to other people but we won't be able to use your name since we did not ask you to give us your name.

**How long will the study take?** The survey should take about 10-15 minutes, and you will do it during class time!

**Are there any good things about being in the study?** We hope that through your participation in this research study, important information will be gained to better assist schools in effectively implementing innovative STEM curriculum that will eventually help students to make informed choices about future STEM subjects or future STEM careers. You won't get anything for being in the study, but you will be helping us do our research.

**Are there any bad things about being in the study?** This study will take up some of your class time, but we don't think it will be bad for you or cost you anything.

**Will you tell me what you learnt in the study at the end?** Yes. When we finish the study we will provide a summary and give a copy to your school..

**What if I have a complaint or any concerns about the study?** The ethical aspects of this study have been approved by the HREC of the University of Sydney [*Project Number: 2017/192*]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. The Manager, Ethics Administration, University of Sydney: **Telephone:** +61 2 8627 8176 **Email:** [human.ethics@sydney.edu.au](mailto:human.ethics@sydney.edu.au)

**This sheet is for you to keep.**

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## **The School-Wide Impact of the STEM (Science, Technology, Engineering, Mathematics) Teacher Enrichment Academy on Principals, Teachers, Students and Parents**

### **Parent/Carer PARTICIPANT INFORMATION STATEMENT**

**(1) What is this study about?** You are invited to take part in a research study that aims to measure the school-wide impact of the STEM Teacher Enrichment Academy across various stakeholder groups: principals, teachers, students and parents. The data gathered through this study will help schools assess the progress of STEM curricular efforts undertaken in their schools as influenced through their school's participation in the STEM Teacher Enrichment Academy. This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Participation in this research study is voluntary. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about. This sheet is for you to keep.

**(2) Who is running the study?** The study is being carried out by the following researchers: Dr. Deborah Tully, Vonwiller Post-Doctoral Research Fellow and Judy Anderson, Associate Professor, Director of the STEM Teacher Enrichment Academy. This study is being funded by the STEM Teacher Enrichment Academy.

**(3) What will the study involve for me and How much of my time will the study take?** As a parent from a school whose teachers have/will participate in the STEM Teacher Enrichment Academy, you will be asked to complete a 10 minute online questionnaire. The questionnaire will take about 5-10 minutes and will ask you about the STEM resources available to your child at their school. Your child may also be asked to complete a 20 minute questionnaire during school that will assess their current interest and attitude towards various STEM subjects. You will need to give consent for your child to participate.

**(4) Who can take part in the study?** Only those schools whose teachers attended the Teacher Enrichment Academy offered through the University of Sydney.

**(5) Do I have to be in the study? Can I withdraw from the study once I've started?** Being in this study is completely voluntary and you do not have to take part. Submitting your completed questionnaire is an indication of your consent to participate in the study.

**(6) Are there any risks or costs associated with being in the study?** No.

**(7) Are there any benefits associated with being in the study?** We cannot guarantee that you will receive any direct benefits. We hope that through your participation in this research study, important information will be gained to better assist schools in effectively implementing innovative STEM curriculum that will eventually influence student choices towards STEM pathways.

**(8) What will happen to information about me that is collected during the study?** If you participate in the online survey, anonymity is assured as participants do not disclose any personal information and IP addresses are not collected. All data sets are protected and stored in Cloudstor, an approved University of Sydney cloud storage system. All data for this project will be stored for twenty years. At the end of the twenty year period, data will be destroyed by appropriate means (electronic and physical shredding processes). When student participants turns 18, they can contact the researchers (Tully/Anderson) to re-verify the data storage protocol used in this study. Study findings may be published, but you will not be individually identifiable in these publications since your anonymity is assured when you complete the questionnaire.

**(10) Can I tell other people about the study?** Yes, you are welcome to tell other people about the study.

**(11) What if I would like further information about the study?** If you would like to know more at any stage during the study, please feel free to contact Assoc. Professor Judy Anderson, Director of the STEM Teacher Enrichment Academy ([judy.anderson@sydney.edu.au](mailto:judy.anderson@sydney.edu.au)).

**(12) Will I be told the results of the study?** A one-page lay summary will be provided to your child's school after this study is finished.

**(13) What if I have a complaint or any concerns about the study?** Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [Project Number: 2017/192]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

**Telephone:** +61 2 8627 8176

**Email:** [human.ethics@sydney.edu.au](mailto:human.ethics@sydney.edu.au)

**Fax:** +61 2 8627 8177 (Facsimile)

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**The School-Wide Impact of the STEM (Science, Technology, Engineering, Mathematics) Teacher Enrichment Academy on Principals, Teachers, Students and Parents**

**PARENT/CARER and STUDENT CONSENT FORM**

I, ..... [PRINT PARENT'S/CARER'S NAME], consent to participating in this research Study.

I also consent for my child ..... [PRINT CHILD'S NAME] to participate in this research study.

I, ..... [CHILD/STUDENT NAME], also consent to participating in this research Study.

In giving my consent I state that:

- ✓ I understand the purpose of the study, what my child will be asked to do (complete a 10-15 minute survey during class time), and any risks/benefits involved.
- ✓ I understand the purpose of the study, what parent/caregiver will be asked to do (complete a 10 minute online survey), and any risks/benefits involved.
- ✓ I have read the Information Statement and have been able to discuss both my and my child's involvement in the study with the researchers if I wished to do so.
- ✓ If I had any questions, the researchers have answered any questions that I had about the study and I am happy with the answers.
- ✓ I understand that being in this study is completely voluntary and that I and my child do not have to take part. My decision whether to take part in the study will not affect our relationship with the researchers or anyone else at the University of Sydney, the STEM Teacher Enrichment Academy or my child's school now or in the future.

- ✓ I understand that I and/or my child can withdraw from the study at any time.
- ✓ I understand that the results of this study may be published, and that publications will not contain my name or my child's name or any identifiable information about my child or me since we do not ask you to provide your name when you take the survey.

**Would you like to receive feedback about the overall results of this study?**

YES  NO

If you answered YES, please indicate your preferred form of feedback and address:

Postal: \_\_\_\_\_

\_\_\_\_\_

Email: \_\_\_\_\_

**PLEASE SIGN AND RETURN TO YOUR SCHOOL/ CHILD'S TEACHER**

**BOTH Parent/Carer AND Child/Student signatures required for participation**

**Parent/Carer Signature:**

**Child/Student Signature:**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_