

**QUT Education**  
**Why do we use eye-tracking in research and what can it tell us?**

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**Research Example**

*Through a child's eyes: Influence of visual processing and vision impairment on literacy and numeracy*

**Funding**

**Project 1:** Ian Potter Foundation, (2014-16)

**Project 2:** Lord Mayor's Charitable Foundation, Melbourne, (2016-17)

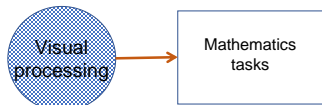
**Investigators:** Sonia White, Joanne Wood, Alex Black & Shelley Hopkins

**Team members:** Chrystal Whiteford, Sam Lee, Marcie Parker, Michelle Jeffries, Laura Bentley, Greg Hindmarsh

**QUT Optometry Clinic and Optometry students**

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**What are the visual processes in specific tasks?**



**Participants**

109 children  
 (61 females, 48 males)  
 Year 3: 8-9 years of age



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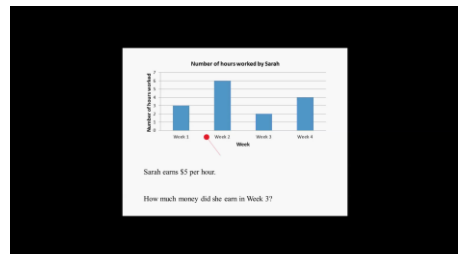
**Mathematics Task**



Sarah earns \$5 per hour.

How much money did she earn in Week 3?

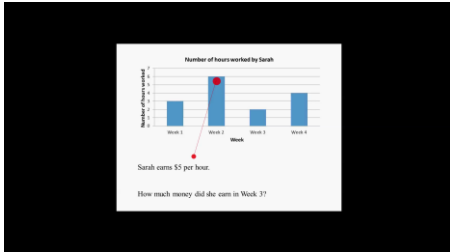
**Eye tracking – not accessing relevant information**



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## Eye tracking - miscalculation



## Practical implications of eye tracking

- The potential for making the implicit visual processes more explicit
- In some instances students are not able to articulate their processes (we need ways of overcoming this)
  - Me:** *How did you work that out?*
  - Student:** *Don't know.*
- By analysing specific tasks we can understand more about what students are accessing/not accessing
  - Targeting supports for individuals
  - Improving presentation and layout so as to make the task more accessible

## Questions

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