



F ulwlf d d # W k l q n l q j # l q #  
X q g h u j u d g x d w h v

**Lightning Talk by Jutta M. Street**

**Campbell University**

**February 9, 2024**



Fu w f d o #  
Wk l q n l q j

rational/logical

purposeful

goal directed

involves metacognition

# Background

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Research

- **Students' critical thinking skills are generally weak**
- **Often still quite dualistic**

Guidelines for teaching

- **Critical thinking skills can be taught with exercises and applications**

## P h w k r g

- **This mixed-method study included the following steps:**
- **(1) Thirty undergraduate students enrolled in a Developmental Psychology course received a 50-minute content unit about the developmental characteristics of the adolescent brain (social brain and prefrontal cortex).**
- **(2) Students received a homework assignment that required them to watch TED Talk by Sarah-Jayne Blakemore (2018)**  
<https://www.youtube.com/watch?v=yQXhFa8dRCI>  
**and answer two prompts about legal issues that may affect adolescents.**

F u l w l f d a #  
W k l q n l q j =  
Adolescent  
Brain Unit  
- lecture  
- reading  
- video

**TASK:**

Based on class lecture, your reading, and the information from the video, answer the following two questions in a comprehensive essay. Begin each answer with your position on the issue and then discuss your reasons for your position and the evidence that backs up your reasons.

# Surp SW

## Prompt 1:

Recent research findings about the teenage brain have found an interesting application in the legal system. Legislators and advocates are using the research to argue for changes in laws affecting teenagers. For instance, statistics have long shown that teenagers are much more prone to be involved in motor vehicle accidents. Pulling together the research on brain functioning with what we know about peer influence, some states have put limits on the number of passengers a teenage driver can have in a car. The reasoning? **Due to brain immaturity, teens may be less able to deflect peer pressure to take risks when driving—and the more peers are present in the car, the greater the pressure.**

## Q1:

Based on what you have learned from your textbook, the class lecture, and the video about teenage brain development, **do you think the highlighted argument is valid?** Explain why or why not.

# Surp SW

## **Prompt II:**

Another area in which this research on the adolescent brain is being used is with regard to decisions whether teenagers charged with serious crimes should be tried as adults. Decisions vary from case to case, but when teenagers are charged as adults in these serious situations, advocates ask, “Is this fair when teenagers still may have the minds of children?”

## **Q2:**

Discuss whether or not you think teenagers charged with serious crimes (felonies) should be tried as adults.

Explain why or why not.

K | s r w k h v h v

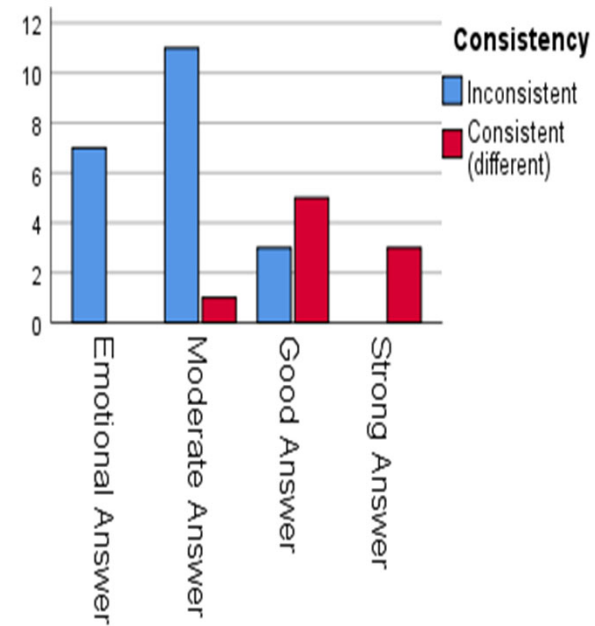
- **H1:** There will be a significant difference between the scores for Prompt I and Prompt II.
- **H2:** The majority of response pairs will show inconsistent reasoning.





## UHVX OW V

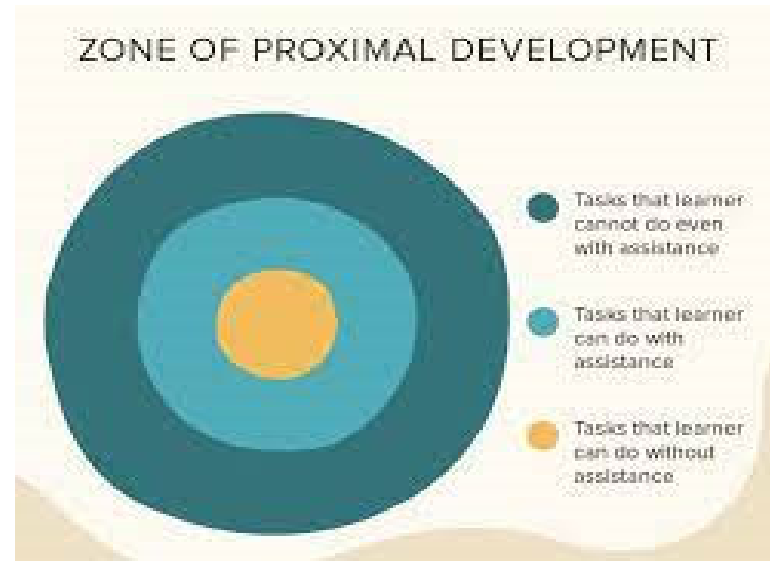
- Paired *t*-test: significant difference between *SD* = .728) and Response 2 (*M* = 3.23, *SD* = .
- Due to the small sample size, this analysis has a significant difference of 0.51 and a 95% CI: .197 - .869.
- Only 9 of 30 students (30%) exhibited logical prompts.



= 3.77,  
.003.  
a mean

F R Q F O X V L R Q V

- Adolescents demonstrate limited ability in critical/rational thinking.
- With the more remote (less concrete) prompt reasoning becomes emotional, rather than rational.
- Future research: apply Lev Vygotsky's theory of cognitive development:
  - Prompt I: **comfort zone**
  - Prompt II: **zone of proximal development (scaffolding)**



# References

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- Muehlenkamp, J. J., Weiss, N., & Hansen, M. (2015). Problem-based learning for introductory psychology: Preliminary supporting evidence. *Scholarship of Teaching and Learning in Psychology*, 1(2), 125–136.

## Acknowledgements:

- A heartfelt thank you to all of the students who participated in this research
- Thank you to Campbell University for a Faculty Development Grant for Spring 2023