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Inherent Curiosity and the Effect of Error Generation on the Ability to Learn German Words

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The Effect of Error Generation and Inherent Curiosity on Foreign Language Learning

Amy Rouse, Kiara Toler, Leonie Steele



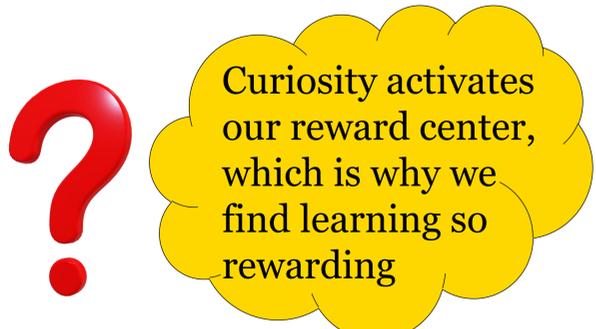
Introduction

Language Learning

- Learning another language has become more of a standard and a need than an exception in most countries (Zeguers et al., 2018).
- People tend to struggle with language learning after childhood.

Curiosity

- Curiosity: The gap between what one knows and what one wants to know (Marvin and Shohamy 2016).



Error Generation

- Error Generation: Making guesses, or predictions about a topic before officially being told the correct answer (Cyr & Anderson, 2015).



- Learner is engaged in “active learning” with the information, which leads to better learning (Martella et al. 2020).
- Error generation has been shown to help with the acquisition of language learning through several different experiments done in previous studies (Potts et al., 2019)
- Having curiosity towards a topic has shown to aid ease of knowledge acquisition (Vogl et al. 2020)

Hypothesis

- The words that require participants to **error generate** will cause **greater retention**, than the words in the read condition
- Those **who remembered more** words from the error generation condition will have **higher curiosity** scores and those who remembered less, will have lower curiosity scores.

Method

Participants

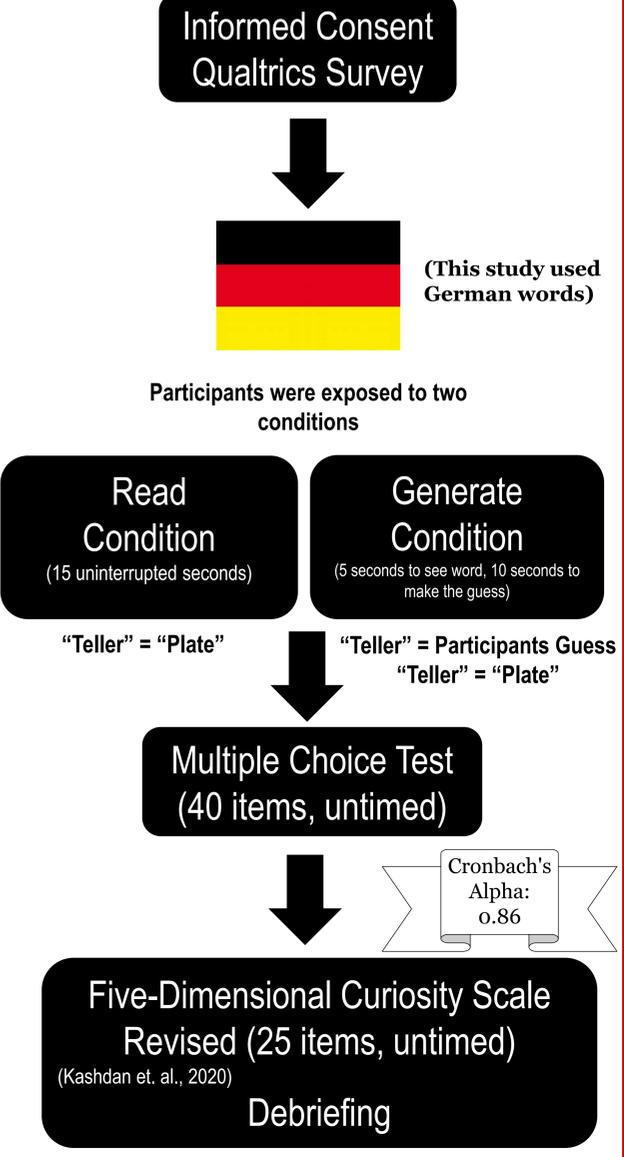
The participants in this study were from the UMW Psychology Participant Pool.

55 Participants
Age Range: 18-27

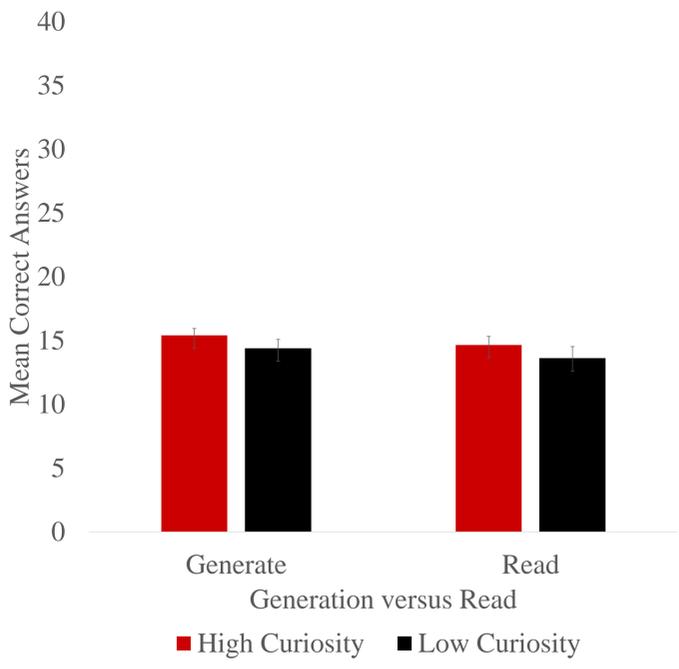
Male	Female	Non-Binary	Prefer not to say
34.5%	60%	.018%	.036%

White	Black/African American	Asian	Native Hawaiian	Hispanic/Latinx/Spanish	Mixed/Other
67%	13%	.09%	.02%	.05%	.04%

Measures & Procedure



Results



Main Effect of Inherent Curiosity, $F(1, 53) = 1.25, p = .268, R^2 = .023$
 Main Effect of Error Generation Versus Read, $F(1, 53) = 3.04, p = .087, R^2 = .054$
 Interaction of Inherent Curiosity and Learning, $F(1, 53) = 0.001, p = .997, R^2 = .001$

Discussion

Findings

- Error generation has a slightly higher mean than the read condition. The direction of the data results were in the right direction, but it was not significant.
- With our studies insignificant results, the methodology of 2019 Potts et. al is still credible, and the Kashdan et. al curiosity scale is still a valid measure.
- Inherent curiosity did not influence learning.

Limitations

- Study was performed online. This resulted in low control of external factors that might have impacted learning.
- Very low power for the main effect of inherent curiosity, the main effect of error generation versus read, and the interaction.
- The fatigue effect potentially caused participants to drop the study due to its length.

Future Research

- Replication of the Potts et. al study done in person rather than online.
- Rather than asking about participants curiosity after the study, perhaps asking after each question would provide a better result.
- Expansion of participant pool to include those outside of college.

References

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