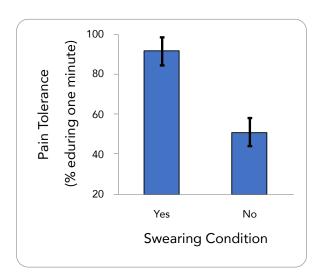
First Name:	Last Name:	Last Name:		
Student ID #:				
PSC 041	Research Methods in Psychology	WQ 2023		

# Unit 4 Exam Version A Research Summary

Please answer the following questions in the space provided. Only write on the lines.

**Adapted from:** Stephens, R., Atkins, J., & Kingston, A. (2009). Swearing as a response to pain. *Neuroreport*, *20*, 1056-60.

Oh \$\*%# that hurts! Do you swear when you stub your toe? Turns out this bad language could be good for you! Psychologists have found empirical evidence that swearing may increase pain tolerance. Sixty-seven undergraduate participants came into the laboratory and were asked to immerse their hand into a bucket of icy water. Researchers explained the whole task and told the participants they could pull their hand out of the water at any time. Icy water is painful but won't cause any actual damage in a few minutes. The researchers randomly assigned half of the participants to repeat swear words in a loud voice while their hand was in the water and instructed the other half to recite the alphabet in a normal voice. They measured if each participant kept his, her, or their hand in the icy water for at least one minute. Researchers compared the results from people who cursed to people who did not curse. More participants who recited curse words kept their hand in the icy water for a full minute (94.44%) than those who recited the alphabet (51.02%). Researchers concluded that reciting curse words significantly increased pain tolerance,  $X^2(N=796) = 17.43$ , p = .003.



#### **Predictor Variable**

Thinking about the Predictor / Independent Variable: <u>Swearing Condition</u>

Partial operational definition: Participants were instructed to swear or to recite the alphabet

2 pts	<ul><li>1. The Predictor / Independent Variable is (fill in Categorical</li></ul>	the box)  Continuous
2 pts	<ul><li>2. How was the Predictor / Independent Variab</li><li>Observation</li><li>Self-Report</li></ul>	ole measured? (fill in the box)  Physiological  It was manipulated
5 pts	3. Is this a causal or associative claim? (fill in the <b>Causal</b>	e box)  □ Associative
5 pts	<ul><li>4. This variable is (fill in the box)</li><li>□ between groups</li></ul>	□ within group
	Use this information only for the next two questions: Another researcher wants to extend this finding the same research question. This researcher inst whatever they want while their hand is in the w participants said swear words or not.	tructs all of the participants to say
2 pts	5. How was this new Predictor / Independent Vol.  ☐ Observation ☐ Self-Report	ariable measured? (fill in the box)  Physiological  It was manipulated
6. How will the new predictor variable change the <b>claim type</b> predictor? Explain your reasoning in a few sentences.		_

#### Outcome Variable

Thinking about the outcome / dependent variable: Pain tolerance

10 pts i	7. How did the researchers operationally define the outcome / dependent variable? Describe it using your own words. Be sure to include the levels or values and indicate how the codes will be interpreted.		
2 pts	8. The outcome / dependent variable Categorical	e is (fill in the box)  □ Continuous	
2 pts	9. How was the outcome / depende  Observation Self-Report	nt variable measured? (fill in the box)  Physiological  It was manipulated	
10 pts	10. Evaluate the <b>construct validity</b> of the outcome / dependent variable. ProTips: Give an overall evaluation. Think about the face validity, the procedure, and the method-match to inform your decision. Use specific vocabulary. Be sure to only discuss this one variable.		
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## **Evaluate Internal Validity and Research Design**

10 pts	11. For this research summary, there is <b>not a testing effect</b> because
10 pts	12. For this research summary, "voice volume" is a confound because
-	
-	
5 pts	13. How could you change the study to eliminate this confound?
	D 4 60
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## Summarize the findings

5 pts	<ul> <li>14. How did the researchers summarize the findings? (fill in the box)</li> <li>□ compare group means</li> <li>□ compare group frequency</li> <li>□ indicate strength and direction of the overall relationship</li> </ul>		
5 pts	15. The error bars overlap. Therefore, to between the variables? (fill in the box)  do; is  do; is not	here likely a real relationship  do not; is do not; is not	
5 pts	16. The p value is Therefore, there between the variables. (fill in the box) ☐ greater than 0.05; is ☐ greater than 0.05; is not ☐ less than 0.05; is ☐ less than 0.05; is not	_ a statistically significant relationship  □ greater than 0.5; is □ greater than 0.5; is not □ less than 0.5; is □ less than 0.5; is not	
	Sampl	ing	
5 pts	17. This is a sample of human beings.  □ <b>probability</b>	□ non-probability	
5 pts	18. What kind of sampling technique did the Cluster  Convenience Snowball Quota	e researchers use?  Systematic  Stratified  Simple Random  Judgmental	
19. In <b>general</b> (not specific to this research summary), define <b>random sampling random assignment</b> . Describe what they have in common (e.g., random) and w different (e.g., which validity they contribute to).			
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## **Evaluate External Validity**

10 pts	20. For this research, evaluate one aspect of <b>external validity</b> . You may include evidence for either a strength or a weakness. (e.g., is this authentic? does this generalize to other situations? does this generalize to other individuals?)
10 pts	21. Another researcher attempted to replicate this study in a different culture. They carefully replicated every step of the procedure. They did not find the same results. Participants in this new study demonstrated the same amount of pain tolerance regardless of what they were asked to say. In this different culture, swearing aloud is socially unacceptable.
	Can the researchers defend their original findings given this failure to replicate? What logic or reasoning would they use to explain these different results? ProTip: Clearly state your conclusion (the new findings can be explained in a way that coexists with the original findings or one of the findings is likely invalid) and explain your reasoning in a few sentences. Focus on the difference between internal validity (failure to replicate) and external validity (failure to generalize).

**Multiple Choice**. Select the <u>single best answer</u>. Indicate your choice by filling in the box to the left of your selection. Do not put stray marks in the other boxes. If you need to change your answer and are unable to erase fully, clearly indicate your final choice (e.g., draw an arrow or circle it). 2 points each.

22.	Five principles of ethical research that are followed by the APA are respect for persons, beneficence, responsibility, integrity and justice. Which of the following is included in the definition of beneficence?  □ Participating in research is voluntary and participants can quit at any time □ Participants have an opportunity to understand the research and make an
	<ul> <li>informed decision about participating</li> <li>Individual performance in a research study is kept confidential</li> <li>Any risk from the research to participants should be minimized</li> <li>The benefits of the research should apply broadly and not only to a particular group</li> <li>Psychologists build trust and conduct their business professionally</li> </ul>
	Research is conducted accurately and reported honestly
23.	To examine interactions in a public park, a researcher observes people as they spend time at parks in a local town. Should this researcher obtain informed consent?     Yes   No
24.	A researcher is using deception to ensure that participants respond naturally to a stimuli. They are concerned that a participant may share critical information about a study's purpose learned during a debriefing with other potential participants, and that this disclosure could bias their responding. To avoid this potential bias, could the researcher decide not to include a debriefing?   Yes  No
25.	Spending on Social Security, Medicare, and Medicaid make up the largest portion of the U.S. federal budget.  This statement is and therefore belong in a scientific report  opinion, could factual, could factual, could not
26.	<ul> <li>.Which of the following behaviors is/are (an) example(s) of plagiarism?</li> <li>Including a sentence that is copied without using quotation marks and a reference citation</li> <li>Representing another's work as your own</li> <li>Including a sentence that is copied and substituting a few words with their synonyms without citing the source</li> <li>All of these</li> </ul>

Sar nai an This _ _ _	pulation: Enrolled undergromple: Obtain a list of all en me on a piece of paper. F d select 100 names. s sampling technique is be Cluster Convenience Snowball Quota	rolled undergrad Put all the papers i	uate students	rge box. Shake the box ic Random andom
28.ln v do	which section of a research ne in the past and why the Introduction Method		reader find a	description of what was cted?
of (	average was 7.4 minutes	generally talk mone talking was 10.7 three women disting by starting an ef, in groups of mix	ore than wom 7 minutes whil cussed the iss d stopping sta ted gender, m	en le for women the ue, the experimenter opwatches nen talk more than
sar	nich of the following is true mpling? Every member of popula Weaker external validity The sample may not be s	tion has same like	lihood of beir	,
	nly value claims require stro lidity Internal, all Internal, value Internal, associative Internal, causal	ong validity bu  External, all External, valu External, asso External, caus	E e Ciative C	require strong construct  Construct, all Construct, value Construct, associative Construct, causal