

2000 AP® PSYCHOLOGY FREE-RESPONSE QUESTIONS

2. The police chief of New City states publicly that she sees a direct relationship between teenage arrests in New City for violent crimes and the popularity among New City teens of especially violent television shows.
- A. Design a correlational study to research this claimed relationship, being sure to address how each of the following design elements would apply to your study.
- operational definition of variables
 - selection of participants
 - generalizability
 - two ethical considerations
- B. The police chief concludes that watching violent television shows leads to teens' committing violent crimes in New City. Do you support her conclusion? Explain your response.

END OF EXAMINATION

2000 A. P. Psychology Exam: Free Response Question 2

The police chief of New City states publicly that she sees a direct relationship between teenage arrests in New City for violent crimes and the popularity among New City teens of especially violent television shows.

- A. *Design a correlational study to research this claimed relationship, being sure to address how each of the following design elements would apply to your study.*
- operational definition of variables*
 - selection of participants*
 - generalizability*
 - two ethical considerations*
- B. *The police chief concludes that watching violent television shows leads to teens' committing violent crimes in New City. Do you support her conclusion? Explain your response.*
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All points must be earned *in context*. This means the student must make it clear he or she is responding to a particular part of the essay. The best way for a student to do this is to use language from the question (e.g., "variables" implies discussion of point 2, "ethics" implies discussion of points 5 and 6, etc.). A student may also establish context by answering the question in order, or if the transitions between points can be inferred by the reader.

Point 1: Correlational Design

Award this point if the student proposes the design of any correlational study (not an *experiment*). Examples are surveys, questionnaires, interviews, case studies, and so on. The student may supply this information at any point in the essay.

Do not score this point if the student proposes an *experiment* by:

- a) explaining the design of an experiment
- b) describing the creation of groups
- c) calling for the random assignment of participants to conditions
- d) using other language that implies an experimental rather than correlational design

If the student proposes an experiment instead of a correlational design, the remaining points may still be awarded.

Point 2: Operational Definition of Variables. A student may earn this point two ways:

Method A. Award this point if the student identifies two or more specific *variables* (not groups) appropriate for the study he or she designs.

The two most common variables will be television violence (typically the predictor or independent variable) and violent crime (typically the outcome or dependent variable). Do not count the outcome variable unless it relates specifically to violent crime; it is not sufficient to express it in vague terms like “the actions displayed.” One (and only one) identified variable may be a specific extraneous variable that might potentially confound the study, such as child abuse or poverty. For one of the variables, the student may define teens.

Students do not need to identify variables as independent, predictor, dependent, or outcome. If the student does use such labels *in a correlational design*, it does not matter which one is applied to television violence and which one is applied to violent crime. However, if the student proposes *an experimental design* and misidentifies television violence as the dependent variable or violent crime as the independent variable, do not award the point.

Method B. This point should also be awarded if the student provides a general explanation of the importance of operational definitions even though specific variables like violent television or crime are not described. For example, the student might explain that operational definitions allow for careful measurement or increased reliability.

Point 3: Selection of Participants

Award this point if the student proposes any procedure designed to increase the randomness or representativeness of the selected participants. The student may specify random sampling, random selection, representative sampling, stratified sampling, placing newspaper ads, or similar methods. A student may also earn this point by proposing that the entire teenage population of New City be selected. Do not award the point if the student simply proposes “seeking volunteers” unless there is an implication that this will somehow increase the representativeness of the sample.

The student may also specify any procedure that would control for a demographic variable (e.g., gender, socioeconomic status, or neighborhood) as long as the specific variable is mentioned and it is not a variable mentioned in the question (TV watching or criminal activity). It is not sufficient to make a vague statement like “different kinds of people must be included.”

This point may be awarded if the student has presented an experimental design, but not by describing random *assignment* to groups. The student must explain a procedure that allows for the random *selection* of participants. If a student proposes an experiment and describes both random sampling and random assignment, award the point. Students frequently confuse the terms “random sampling” and “random assignment,” but this point should be awarded or not awarded based on the procedure described rather than the term used.

Point 4: Generalizability

Award this point if the student makes an appropriate statement about how the results of this study can or cannot be applied to a population larger than or different from the participant sample (e.g., all New City 7th graders, all New City teenagers, teenagers in similar cities, etc.). In order to make this determination, it may be necessary to consider the sampling procedure described for point 3. Do not award this point if the generalizability statement contradicts the sampling statement.

Note that this point relates to the generalizability of results, not other kinds of generalization (for example, of violent behaviors).

Points 5 and 6: Two Ethical Considerations

Award one point each for two ethical considerations. These may include:

- a) Any aspect of informed consent. The participants' permission, or their parent's (or guardian's) permission, must be obtained before the study. The participants must receive general information about the nature of the study before it begins. Participation must be voluntary.
- b) Participants have a right to withdraw from participation or have data about them withdrawn at any time.
- c) Information about individual participants must be confidential.
- d) Participants must be debriefed.
- e) An analysis of whether the potential benefits of the research outweigh the potential risks. This includes considering, *when designing the study*, the potential perpetuation of stereotypes related to teens or ethnic groups.
- f) Participants have a right not to be harmed. This includes protection from negative states such as "being upset" *as long as the condition extends beyond the time frame of the study*. Award a point for statements like "this study is unethical because a participant exposed to violent television shows might experience bad dreams" or "might continue to be upset by the experience," but don't award a point for statements like "this study is unethical because it's upsetting to watch violent television shows." This point can only be awarded for students who propose an experimental design.
- g) Ethical concerns that exist because the study might cause participants to be violent. This point can only be awarded for students who propose an experimental design.

Point 7: Support for Police Chief's Conclusion

Because of the wording of the question, this part of the answer does not have to be linked with the student's response to Part A. The student may receive credit for either supporting or not supporting the police chief's conclusion.

When the student does not support the police chief's conclusion:

Award the point if the student indicates that the results of correlational studies may not be used for cause and effect conclusions. The student may also do this by mentioning that variables not controlled in a correlational study (such as family environment or peer relationships) could possibly account for different levels of violent crime. These other variables do not need to be specified.

When the student supports the police chief's conclusion:

There are two methods whereby the student may earn the point.

Method A. Award the point if the student argues that the police chief's conclusion is supported by research indicating that violent media can indeed lead to aggressive behavior. This requires the student to both indicate the research basis and use terminology specified below. The research basis may be established through the use of phrases like "Bandura showed," "there is evidence that," or "based on research." The terminology must include "observational learning," "imitation," or "modeling." Students may also use a discussion of desensitization if it is explained. Do not accept statements like "there is evidence teenagers copy what they see."

Method B. Award the point if the student described an experiment and indicates that the results of the experiment support such a cause and effect conclusion.

Write in the box the number of the question you are answering on this page as it is designated in the examination.

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Page 1

In designing a study to research the claimed relationship between ^{New City} teenage arrests and popularity among New City teens of violent television shows, one would first need to operationally define the variables involved. The first variable is ~~defi~~ "violent crime", which can be defined as crime which involves harm inflicted on someone else. The other variable is "violent shows", which can be defined as shows which depict violence in an comical manner or as socially acceptable. To conduct the survey, a random, representative sample ~~would~~ of teens who are/have been arrested would need to be found. Next, a survey would be given to the teens about their show preferences and the amount of time spent watching these shows. Because the sample is random and representative, it can be generalized to represent the population. Two ethical concerns that would need to be addressed are the right to privacy of the teens, and the need for their consent to be apart of the survey/study.

I would not support the police chiefs' conclusion that watching violent television shows leads teens to commit violent crimes in New City, because even though there may be a correlation in the data, correlation does not necessarily imply causation. There may be many other factors in the teens lives or upbringing that affects their actions.

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A. The experiment involves one group of teenagers who watch violent shows and another control group which watches a Disney movie. Afterwards, the participants are tracked for a month and ~~the~~ whether or not they are arrested is recorded.

The independent variable is the amount of violence shown to the participants. For the experimental group, there is at least 45 minutes of violent behavior such as shooting, fighting, etc. In the control group there is under 10 minutes of violence.

The dependent variable is the number of participants from each group that ~~is~~ are arrested in a one month period.

The population is drawn from all the 17 year olds (male & female) attending New City High School. The selection is ~~there~~ randomly by randomly selecting school identification numbers.

Due to the diverse population of New City High School, the random sample contains representatives from all racial, ethnic, and economic backgrounds, thus allowing the

Results to be generalized to all 17 year olds in New City. However, since only 17 year olds are used and due to differences in environments other than New City Highschool, the results can only be generalized to New City 17 year olds.

Permission ^{to be used in the experiment} is obtained from all of the subjects and also from their parents due to the fact that they aren't yet 18. No one is forced to participate without their consent.

Plus, when the chief of police announced the results of the experiment, no names are mentioned. Also, participants are free to quit if they feel it is ^{the experiment} necessary.

B. I do not support her conclusion. There are confounding variables in the experiment that ~~lead to~~ could lead to faulty results. Some teenagers might be naturally inclined to behave in ways that will lead to arrest due to the environment they live in or the behavior of close friends

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Write in the box the number of the question you are answering on this page as it is designated in the examination.

and family. There is no guarantee that their arrest was caused by watching a violent show, there are too many factors that have not been eliminated such as environment, past experience, and personality. Also, since the experiment was only for 17 year olds, it cannot be generalized to say that all teens commit crimes due to watching violence on television.

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page 1

UPON COMMENCING THIS STUDY I WOULD HYPOTHESE THAT WATCHING VIOLENT T.V. SHOWS INCREASES THE LIKELIHOOD THAT ONE WILL PERFORM A VIOLENT ACT. I WOULD THEN HAVE TO TAKE INTO CONSIDERATION ANY OUTSIDE VARIABLES, SUCH AS: WHO THE PEOPLE HANG AROUND WITH, WHAT DO THEY DO IN THEIR FREE TIME, HOW MUCH T.V. DO THEY ACTUALLY WATCH, ARE THEY RELIGIOUS, DO THEY ATTEND SCHOOL/HAVE A JOB, & OTHER MATTERS WHICH MIGHT IMPACT ON MY STUDY. I WOULD THEN MAKE UP A QUESTIONNAIRE ASKING SUCH QUESTIONS, & OTHERS LIKE: WHAT VIOLENT PROGRAMMING DO YOU WATCH, DID YOUR PARENTS PHYSICALLY PUNISH YOU, WHAT IS YOUR ETHNICITY, & HOW MUCH ~~DO YOU~~ IS YOUR ANNUAL HOUSEHOLD BUDGET. I WOULD THEN ^{RANDOMLY SAMPLE} ~~SELECT~~ TEENS FROM THE COMMUNITY ENSURING I GET SOME FROM EVERY CLASS, RACE, & SOME WHO ARE KNOWN TO BE INVOLVED WITH THE VIOLENT CRIMES, & SOME WHO ARE KNOWN TO BE OUTSTANDING CITIZENS. OF THOSE PARTICIPANTS, EACH WOULD FILL OUT THE QUESTIONNAIRE AND RETURN IT. I WOULD, BEFORE GIVING OUT THE QUESTIONNAIRE, ENSURE THAT THE QUESTIONS ARE SPECIFIC ENOUGH TO NOT HAVE THE ~~FOR~~ RESULTS OVER GENERALIZED. I WOULD ALSO MAKE SURE THAT UPON PUBLISHING MY RESULTS, I DO NOT SPECIFICALLY MENTION ANY OF THE PARTICIPANTS ~~AND~~ & THEIR INFORMATION, E.G. JOHN SMITH IS CAUCASIAN WITH HOUSEHOLD INCOME OF \$1,000,000,000. I ALSO HAVE TO BE CAREFUL NOT TO PINPOINT THE CAUSE AS IT COULD HAVE DAMAGING EFFECTS. E.G. AFRICAN AMERICANS MAKE UP 72% ~~OF~~ ~~THE~~ PEOPLE WHO COMMIT VIOLENT ACTS. THIS COULD CAUSE SOME MAJOR RACIAL WORDS.

Write in the box the number of the question you are answering on this page as it is designated in the examination.

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Page 2

I WOULD NOT SUPPORT THE POLICE CHIEF'S CONCLUSION AS CORRELATION DOESN'T MEAN CAUSATION. THERE COULD BE (AND PROBABLY ARE) OTHER INFLUENCES WHICH CAUSE THE TEEN TO ACT THE WAY THEY. FOR EXAMPLE THE TEEN COULD HAVE HAD A VIOLENT UPBRINGING OR MAY BE HE GOT INFLUENCED BY A BAD CROWD.