10. When you critique the method section, question the construct validity of the measures and manipulations and ask how easy it would have been for participants to have played along with the hypothesis.
11. When you look at the results section, question any null (nonsignificant) results. The failure to find a significant result may be due to the study failing to have enough power.
12. In the discussion section, question the authors' interpretation of the results, try to explain results that the authors have failed to explain, find a way to test your explanation, and note any weaknesses that the authors concede.
13. The possibility of Type 1 error, Type 2 error, or fraud may justify doing a direct replication.
14. You can do a systematic replication to improve power, external validity, or construct validity.
15. If minor changes can't fix problems with a study's construct validity, you should do a conceptual replication.
16. Replications are vital for the advancement of psychology as a science.
17. Reading research should stimulate research ideas.

KEY TERMS

abstract *(p. 113)*
conceptual replication *(p. 137)*
direct or exact replication *(p. 128)*
discussion *(p. 126)*
experimental design *(p. 115)*
file drawer problem *(p. 130)*
introduction *(p. 114)*
method section *(p. 119)*
power *(p. 116)*
Psychological Abstracts *(p. 113)*
PsycINFO *(p. 113)*
results section *(p. 121)*
systematic replication *(p. 131)*
Type 1 error *(p. 129)*
Type 2 error *(p. 129)*

EXERCISES

1. Find an article to critique. If you are having trouble finding an article, consult Web Appendix B (Searching the Literature) or critique the article in Appendix B. To critique the article, question its internal, external, and construct validity. If you want more specific help about what questions to ask of a study, consult Appendix C.
2. What are the main strengths and weaknesses of the study you critiqued?
3. Design a direct replication of the study you critiqued. Do you think your replication would yield the same results as the original? Why or why not?
4. Design a systematic replication based on the study you critiqued. Describe your study. Why is your systematic replication an improvement over the original study?
5. Design a conceptual replication based on the study you critiqued. Describe your study. Why is your conceptual replication an improvement over the original study?
6. Evaluate the conclusions of these studies. Then, recommend changes to the study.
   a. A study asked teens whether they had taken a virginity pledge and found that those who claimed to have taken a pledge were more likely to abstain from sex than those who claimed not to have taken that pledge. The researchers conclude that abstinence pledges cause students to abstain from sex.
   b. A study finds that teens, after completing a three-year, voluntary, after-school abstinence education program, are better informed about the diseases that may result from sex. The researchers conclude that abstinence pledges cause students to abstain from sex.