

Chapter 10 Homework: Measuring Cognitive Objectives With Written Tests

1. Develop a table of specifications for a written test you might use in a sport skills class (e.g., tennis, archery, bowling, golf).
2. The following information was recently obtained from an item analysis. The correct response to the item was D. What is the difficulty index for this item?

	A	B	C	D*	E
Higher group	5	5	4	35	1
Lower group	7	22	5	10	6

3. The following information was recently obtained from an item analysis. The correct response to the item was D. What is the discrimination index for this item?

	A	B	C	D*	E
Higher group	5	5	4	35	1
Lower group	7	22	5	10	6

4. The following information was recently obtained from an item analysis. The keyed correct response to the item was D. What is the difficulty index for this item?

	A	B	C	D*
Higher group	25	15	10	50
Lower group	15	10	10	65

5. The following information was recently obtained from an item analysis. The keyed correct response to the item was D. What is the discrimination index for this item?

	A	B	C	D*
Higher group	25	15	10	50
Lower group	15	10	10	65

6. Tell what happens to test reliability for each of the following types of discrimination values: positive value, zero value, and negative value.

7. The following information was recently obtained from an item analysis. The keyed correct response to the item was A. What is the difficulty index for this item?

	A*	B	C	D
Higher group	65	15	10	10
Lower group	35	20	20	25

8. The following information was recently obtained from an item analysis. The keyed correct response to the item was A. What is the discrimination index for this item?

	A*	B	C	D
Higher group	65	15	10	10
Lower group	35	20	20	25

9. The following information was recently obtained from an item analysis. The keyed correct response to the item was A. What is the difficulty index for this item?

	A*	B	C	D
Higher group	25	25	24	26
Lower group	35	20	20	25

10. The following information was recently obtained from an item analysis. The keyed correct response to the item was A. What is the discrimination index for this item?

	A*	B	C	D
Higher group	25	25	24	26
Lower group	35	20	20	25

11. The following information was obtained on a recent item analysis. The keyed correct response was D. What is the difficulty index for this item?

	A	B	C	D*
Higher group	10	15	225	250
Lower group	5	20	175	300

12. The following information was obtained on a recent item analysis. The keyed correct response was D. What is the discrimination index for this item?

	A	B	C	D*
Higher group	10	15	225	250
Lower group	5	20	175	300

13. When do items have the best potential discrimination?

14. Write five true–false items and give them to your classmates to review and comment on.

15. Write 10 matching items and give them to your classmates to review and comment on.

16. Write five multiple-choice items and give them to your classmates to review and comment on.
17. What is the difference between extrinsically and intrinsically ambiguous test items?
18. Write three essay items and give them to your classmates to review and comment on.
19. Identify the two most important characteristics of a written test.
20. Given the following information, calculate KR20 for a test: number of items = 100; total test variance = 50; sum of p_q = 20; mean = 50.
21. Given the following information, calculate KR21 for a test: number of items = 100; total test variance = 50; sum of p_q = 20; mean = 50.
22. Given the following information, calculate KR20 for a test: number of items = 50; total test standard deviation = 10; sum of p_q = 4; mean = 40.
23. Given the following information, calculate KR21 for a test: number of items = 50; total test standard deviation = 10; sum of p_q = 4; mean = 40.
24. Explain why most items on a written test should be of about average difficulty.
25. Explain why representativeness is more important than sample size when you are obtaining data with a questionnaire.
26. What advantages do closed-ended questions have over open-ended questions on a questionnaire?
27. What, next to the questionnaire itself, is the most important item to bolster the response to a questionnaire study?
28. With what domain are questionnaires most likely associated?