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BOOK REVIEW: EDUCATIONAL TESTING AND MEASUREMENT: CLASSROOM APPLICATION AND PRACTICE

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Abstract

Educational Testing and Measurement: Classroom Application and Practice (5th ed.) is a book written by Tom Kubiszyn and Gary Borich for readers, teachers, and researchers interested in the field of educational testing, assessment, and measurement. The tenth edition of the book was published in 2013 by John Wiley & Sons, Inc. Authors of the book try to help instructors of both undergraduate and graduate courses in educational measurement make proper educational decisions in educational environments. The tenth edition of this book comprises 21 chapters. The authors intend to provide information on how cope with practical problems when testing students. Another purpose of the book is to help language teachers evaluate those students who have learning disabilities but participate in regular classes. Also, the book tries to make use of personal computers for measurement purposes.

Keywords: educational testing, measurement, learning disabilities

This book starts with a brief overview of trends in educational measurement and discusses the ways of making proper tests to evaluate teachers' performance and students. It talks about the way of using test scores and the merits and demerits of tests. The introduction section raises several of the current issues and trends with regard to measurement of students, focusing on the impact for teachers. Chapters 2 and 3 provide teachers with the basic underpinnings of testing and the distinction between norm-referenced and criterion-referenced assessments.

In chapters 4 and 5, the authors discuss the importance, development, and measurement of educational objectives and learner outcomes. A model is provided describing classroom measurement. The distinction between expressive and behavioral objectives is also presented. Particular attention is paid to the discrepancy between learning activities and learning outcomes.

Authors make a connection between specification of objectives and sample test items and provide taxonomies of objectives in the affective, cognitive, and psychomotor domains. They explain the use of a test blueprint to ensure that a measure assesses all relevant content and processes.

Chapters 6 and 7 discuss explicit instruction on the development of objective-test items, essay type items, and the procedures for administering and analyzing the test itself. Authors describe the

shortcomings and advantages of each type, for instance, the limitations related to true-false items. Details about writing acceptable objective-test items are provided. The chapters repeatedly use a sample item or other example to show points and encourage readers to problem solve on a real item when they read the text. A short section about gender and racial bias in test items is presented in the chapter on writing objective-test items. The chapter about writing essay-test items incorporates a discussion of their potential misuses, advantages, and limitations. Clear suggestions for writing and using essay-test items are provided. Issues in scoring and scoring criteria are provided, with examples and mention of a rating method to score essay-test items.

Chapter 8 talks about test assembly, especially how to "package" test items with regard to layout, content, difficulty, and so on. A practical checklist is presented. The section about administration of tests gives practical advice, including whether to include a correction for guessing, although the difference between a speed and power test is not included. Readers are introduced to item analysis (quantitative item analysis and a discrimination index) through a question and answer format that directs teachers to the practical relevance of learning about these procedures. A number of item-analysis modifications related to criterion-referenced measures also are discussed. A brief section on guidelines in providing feedback to students about their performance is included.

Chapter 9 introduces performance and portfolio assessments. A definition of performance assessments is provided, as well as descriptions and illustrations of how teachers can use performance assessments to assess process, product, and social skills. Their appeal for assessment of higher-order cognitive skills and demonstration of skills in more real-life applications is noted. Readers are provided steps for construction of measures, including the development of scoring rubrics. Advantages and disadvantages of performance assessments are mentioned in the description and construction sections. A brief section on portfolios concludes the chapter.

The development and implementation of marking systems, including weighting systems and how to combine performance and traditional assessment procedures, are covered in chapter 10. The purpose of marking systems is defined as providing feedback about achievement; and with respect to academic courses, the authors state that only achievement should be reflected in the mark. A discussion of various types of comparisons to use when assigning a mark is presented (e.g., comparing student performance to an established standard). The chapter also covers practical information on combining grades from separate measures, including performance assessments, into a final mark.

Chapter 11 presents an overview of procedures available to observe behavior and to measure attitudes. A section on how attitudes can be classified and measured is followed by a description of various measurement methods, including unstructured and structured observations and Likert-type and other scales. Instructions in the development of a Likert scale and how to review anecdotal records are provided. The possibilities, use, and controversies associated with using sociograms are also presented. The chapter does not include instructions for direct observation of target behaviors using applied behavior analysis (e.g., event or interval recording) nor does it describe or illustrate any published scales for recording classroom teacher-student interactions or social behavior.

The next six chapters (chapters 12-17) introduce teachers to the statistical concepts needed to summarize and interpret test-score information. The first four of these chapters address measures of central tendency, variability, and correlation. Two other chapters in this section help teachers become acquainted with the concepts of validity, reliability, and measurement error associated with testing. Chapter 12 introduces the subject in a reader-friendly manner and includes step-by-step information for graphing data. The authors present information about measures of central tendency in a straightforward, organized manner. In chapter 13, measures of variability and concepts related to a normal distribution are covered. Readers are given step-by-step instructions to calculate the standard deviation, and several illustrations describe properties of normal curves, particularly the percentages of cases that fall under portions of the curve. Z and T scores and their calculation are introduced. Correlation is introduced in a straightforward manner in chapter 14, and scatterplots are presented to help readers "see" the strength and direction of relationships. The distinction between correlation and causation is made, and cautions about nonlinear relationships are presented.

Chapters 15 and 16 present teachers with information about how to evaluate tests using the concepts of validity, reliability, and measurement error. Different types of validity are explained and discussed through the example of college selection tests. Methods of estimating reliability are presented, followed by interpretation of coefficients in a manner that is intended to link what readers have learned about validity with reliability principles. Practice exercises incorporate reliability information for hypothetical, but not actual, standardized assessments used in classrooms. Chapter 17 includes a carefully organized presentation of the standard error of measurement, with a specific section on "Why all the fuss about error?" The chapter concludes with guidelines for interpreting confidence bands to address problems associated with reporting difference scores as indices of performance changes.

Chapters 18 and 19 are devoted to standardized tests, including types, uses, and interpretation. The many test scores offered for standardized tests, as well as student factors affecting interpretation of scores, are presented. Examples of the "press-on" label and a skills analysis from an actual standardized achievement test are provided. Chapter 19 presents many of the common measures, both academic and aptitude, that are likely to be encountered by teachers. Information about planning program evaluations at the school or district level is also provided.

In Chapter 20, Kubiszyn and Borich describe the assessment of students with special needs who are served in regular classrooms. Information is presented on how Federal laws provide students with disabilities the right to a free, appropriate, public education and on the many initiatives to serve more students with disabilities within integrated settings, including part-time or full-time regular classes. A process for identification and assessment of students suspected of a disability is presented, followed by information about development of an Individual Education Plan (IEP). Using the IEP to individualize instruction and reviewing the IEP to evaluate progress are discussed from the perspective of regular educators. A special section discusses procedures for monitoring students on medication. A separate section describes assessment and identification procedures for students who are gifted and talented.

The focus of chapter 21 is a presentation of the nature and use of personal computer (PC) applications in classroom measurement. Basic concepts, types of computers, computer components, methods of data storage, and software are explained. Readers are offered many examples and justifications for using PCs in classroom measurement. Guidelines for locating measurement-related software relevant to respective teachers are offered, although the review of measurement-related software packages has been eliminated in this edition. A step-by-step approach to selecting a PC to meet the differing needs of classroom teachers is provided.

Through a real-world dialogue, Kubiszyn and Borich conclude with a summary of the many critical issues and practical considerations that teachers confront in developing, administering, and interpreting student assessments.

On balance, the authors achieve many of their objectives: The book is readable and relevant, and it meets many of the assessment-related needs of classroom teachers. The dialogue, vignette, and straightforward language of the text help convey the many measurement concepts and considerations teachers must grasp. The text appears to be successful in providing a foundation and many practical guidelines for setting instructional goals and selecting, constructing, administering, and interpreting results of assessments. Chapters are concise and focused and have several exercises and applications to check readers' understandings.

Three shortcomings of the text may be noted. First, the authors state that the purpose of assessment is to provide objective information to make better educational decisions, including ones related to instruction, grading, diagnostics, selection, placement, counseling and guidance, program and curriculum, and administrative policy. Much of the content of the text, however, is directed toward assessments to support providing feedback to students about achievement, not the other purposes (e.g., Figure 8.4 and chapter 10 on marking systems). Performance and program assessments were described. However, more information on how to use these and the other assessments is needed to link developing and using assessments to support other critical educational decisions, including evaluation of the effectiveness of instructional programs; analyses of student performance that tie directly to instructional decisions; whether students can apply and integrate skills in real-life contexts; and how the assessment method can effectively communicate level and progress with parents, students, and the public (Fuchs & Fuchs, 1996).

A second limitation is the need for more actual curricula and test protocol excerpts to help readers better understand and practice application of text material in a classroom context, particularly to understand distinctions between norm- and criterion-referenced assessments. For example, more extracts from actual curricula to develop instructional objectives and test items are needed (chapter 5). The chapters that cover statistical concepts need more practice activities with actual classroom applications (e.g., how to identify and interpret T-score for a child using an excerpt of an actual assessment test, how to incorporate concepts of reliability when considering whether to buy or use a particular test, or a practice exercise using the method of "confidence band interpretation" with a "filled in" actual test summary profile).

The chapter on assessments and procedures related to students with special needs is much needed by classroom teachers. Although much valuable information is presented, there are many

shortcomings. Specifically, the legislation discussed was superseded in 1990 by the Individuals with Disabilities Education Act (PL 101-476,IDEA), in which new and expanded mandates were adopted (e.g., for transition planning, early childhood). Further, the section on services within the least restrictive environment could be misleading to some pre-service educators. IDEA, as PL 94-142 before it, continues to affirm that a full continuum of placements be made available and does not mandate full inclusion. Recent national trends in placements have shown a modest increase in rates of placement in integrated settings (U.S. Department of Education, 1996). However, educators and professionals continue to discuss and recommend services within a variety of settings. The information about the assessment process is helpful but would be strengthened if linked to the testing concepts-for example, norm- and criterion-referenced testing described earlier in the text. Observation of child behavior is discussed; unfortunately, chapter 11 does not present specific procedures for conducting direct observations of target instructional or social behavior.

The authors needed to explain in more detail how information about

progress obtained from assessments related to a child's IEP may be used to make modifications in a student's instructional program and how to link this information with that presented in chapters 4 and 5 on the development of instructional goals. The title of the section on assessing children who are gifted as "At the other end of the curve" conveys an inappropriate and misleading impression. The statement reinforces the view that children's intellectual aptitude rather than learning characteristics is paramount and that disabilities may be viewed as cognitive, rather than reflecting any number of conditions (e.g., sensory, physical, learning, or behavioral). Although this chapter includes much important information, teachers will need additional guidance to plan, conduct, and interpret assessments with children with disabilities in a manner that appropriately incorporates some of the procedures used with normally achieving students that are described throughout the text; teachers will also need additional individualized measures.

Final Remarks

Educational Testing and Measurement provides a careful, updated, and readable introduction to notions, construction, use, and interpretation of assessments. Using the presentation in the text as the starting point, limitations may be addressed through further discussion and clarification. The focused chapters, realistic classroom dialogues, organized presentation of concepts and guidelines, and upbeat writing style make it an effective and appealing text both for students and instructors.

References

- Kubiszyn, T., & Borich, G. (2003). *Educational Testing and Measurement Classroom Application and Practice*. New York: John Wiley & Sons.
- Fuchs, L. S., & Fuchs, D. (1996). Combining performance assessment and curriculum-based measurement to strength en instructional planning. *Learning Disabilities Research Practice*, 11, 183-192.
- U.S. Department of Education. (1996). *Eighteenth annual report to congress*. Washington, DC: Author.