The Kernel Method of Test Equating Statistics for Social and Behavioral Sciences

Test equating is the process of ensuring that different versions of a test are equivalent. This is important for a number of reasons, including:



The Kernel Method of Test Equating (Statistics for Social and Behavioral Sciences) by Alina A. von Davier

★★★★ 4 out of 5
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Text-to-Speech : Enabled
Print length : 230 pages
Screen Reader : Supported



* To ensure that scores from different versions of a test can be compared directly * To allow for the creation of a single score scale for tests that are administered at different times or in different locations * To provide evidence that a test is valid for use with different groups of people

The kernel method is a powerful method of test equating that has been used for many years in the social and behavioral sciences. The kernel method is based on the idea of using a kernel function to smooth the distribution of scores on two different versions of a test. This smoothing process helps to ensure that the two versions of the test are measuring the same construct and yield comparable scores.

The Kernel Method

The kernel method of test equating is a nonparametric method, which means that it does not make any assumptions about the distribution of scores on the two versions of the test. This makes the kernel method a versatile method that can be used with a wide variety of tests.

The kernel method is based on the following steps:

1. The scores on the two versions of the test are standardized. 2. A kernel function is selected. 3. The kernel function is used to smooth the distribution of scores on the two versions of the test. 4. The smoothed distributions of scores are equated. 5. The equated scores are used to create a single score scale for the two versions of the test.

The choice of kernel function is important, as it affects the shape of the smoothed distribution of scores. A number of different kernel functions can be used, including the Gaussian kernel, the Epanechnikov kernel, and the triangular kernel.

Applications of the Kernel Method

The kernel method has been used in a wide variety of applications in the social and behavioral sciences, including:

* Equating scores on different versions of standardized tests * Equating scores on tests that are administered at different times or in different locations * Providing evidence that a test is valid for use with different groups of people * Creating composite scores from multiple tests

The kernel method is a powerful and versatile method that can be used to ensure that different versions of a test are equivalent. This method has

been used for many years in the social and behavioral sciences, and it continues to be a valuable tool for test developers and researchers.

The Kernel Method of Test Equating Statistics for Social and Behavioral Sciences provides a comprehensive and up-to-date guide to the kernel method of test equating. This powerful method is used to ensure that different versions of a test are equivalent, meaning that they measure the same construct and yield comparable scores. The book covers all aspects of the kernel method, from the basics to advanced applications. It is a valuable resource for test developers, researchers, and anyone else who is interested in learning more about test equating.



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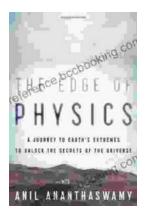
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