Evaluating the Effect of Ability Differences between Groups and the Use of a Non-Representative Anchor on Equating in Cross-Lingual Circumstances

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Cross-lingual equating, in which a translated test is equated to its original version, is usually conducted in the “separate monolingual group design.” This design is similar to the well known “common item non-equivalent group” equating design except that in this design source- and target-language versions of the test are administered separately to source- and target-language examinee groups, and a set of translated items, considered to be equivalent across languages, is used as an anchor.

According to the literature, equating in such a design may seriously be affected if there are considerable differences between the ability levels of the language groups being equated or if an unrepresentative anchor item set is used. However, this is the case in many cross-lingual equating circumstances. It is quite common to find ability differences between language groups and to use an anchor that does not represent the whole test properly since many items are non-translatable, or do not retain the same psychometric characteristics following translation. This is especially true for items in which the verbal aspect is critical. The effect of ability differences and of the use of a non-representative anchor on equating was studied in a typical cross-lingual setting. Data from two versions of the Psychometric Entrance Test (PET) for admission to Israeli universities were used. The equating of the verbal domain subtest using similar vs. dissimilar examinee samples and representative vs. non-representative anchors was compared. In terms of examinee scores, differences found in both comparisons were about one fifth of a standard deviation. It is suggested that the effect on equating of these two factors alone has been overestimated in the literature. Some explanations and implications for cross-lingual equating are discussed.