

# Students as informants: A mixed PCM to compare school environments

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## **Abstract**

Most of the large scale assessment (PISA, TALIS, ICCS) use IRT models to generate scores over multiple-item scales. Yet some of these sets of items are reflective measures. These are special cases, where students and teachers may act as rates of school environment features. The use of latent trait models over these measures comes at a risk of treating these scores as individual traits. For example, using these scores as student's personal experiences of school practice, instead of using student's collective experiences from the same classroom as measures of school practice. In this presentation, we outline a taxonomy to identify these types of measures in different studies. Moreover, we propose the use of a mixed partial credit model. This approach lets us separate informant's variance, from school feature variance. The interpretation of each component from this model is discussed and illustrated with an application. Three features from this approach are highlighted during the presentation: a) items, students and schools can be compared in the same scale; b) the quality of the items can be judged regarding the pertinent inference level, and c) it facilitates the model specification for learning environments research, either to study access to school practices or to study school practice effectivity.