

# Searching prior information to solve small sample size issues in SEM

**Zondervan-Zwijnenburg, M. A. J.**<sup>1\*</sup>, Peeters, M.<sup>1</sup>, Depaoli, S.<sup>2</sup>, Rens van de Schoot<sup>1,3</sup>

<sup>1</sup> Utrecht University, The Netherlands

<sup>2</sup> University of California, Merced, USA

<sup>3</sup> North-West University, South Africa

\* Presenting author – PhD student Herbert Hoijtink & Rens van de Schoot

## **Suggested talk duration (15-60 minutes)**

20 minutes, including 5-minute discussion

## **Summary (max. 500 words)**

In this presentation, we will demonstrate guidelines on how to search and specify prior information for parameters in a structural equation model. We will demonstrate the guidelines by means of an empirical application about development of working memory in young heavy cannabis users ( $n = 16$ ) and non-using peers ( $n = 252$ ). To obtain prior information for the latent growth curve model of interest, meta-analyses, reviews, empirical papers and experts were involved. We will explain our systematic approach, comment on our experiences, and provide general recommendations to assist researchers that want to incorporate prior knowledge in a structural equation model.

## Reference

Zondervan-Zwijnenburg, M. A. J., Peeters, M., Depaoli, S., & Van de Schoot, R. (in press). Where do priors come from? Applying guidelines to construct informative priors in small sample research. *Research in Human Development*. doi: 10.1080/15427609.2017.1370966

## **Relevance to conference theme**

This methodological presentation clarifies how researchers can go about searching prior information to solve small sample size issues.

## **Keywords (max. 3)**

Prior information; structural equation modeling