Mathematical knowledge of the lecturer and mathematical knowledge for lecturing at the undergraduate level: An attempt to distinguish between the two

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This paper is an attempt to distinguish between mathematical knowledge possessed by a lecturer and mathematical knowledge that is used for lecturing. For that, existing theoretical models on mathematical knowledge for primary and secondary teaching were examined. The key idea is the understanding that lecturing contexts mostly reveal mathematical knowledge used for lecturing, but not the entirety of mathematical knowledge possessed by the lecturer. This broadens the notion of mathematical knowledge for lecturing (MKfLg) by embedding it in the mathematical knowledge of lecturer (MKnLo). Acknowledging the difficulty in predicting exact boundaries between these two mathematical knowledge bases, working definitions are constructed. A major research question that may arise on the acceptance of these definitions is what particular component of MKnLo is the main contributor to MKfLg. To this end, my research is to develop a theoretical model of mathematical knowledge required for lecturing at the tertiary level, based on models constructed for secondary teaching. The model will be adapted to include research knowledge and other tertiary factors. Of particular interest will be the unique and personal knowledge lecturers gain from their own research work.