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**Mathematical modelling as a strategy for building-up systems of knowledge in different cultural environments.**

Stillman, Gloria Ann (ed.) et al., Mathematical modelling in education research and practice. Cultural, social and cognitive influences. Cham: Springer (ISBN 978-3-319-18271-1/hbk; 978-3-319-18272-8/ebook). International Perspectives on the Teaching and Learning of Mathematical Modelling, 35-44 (2015).

Summary: Knowledge is a cumulative succession of strategies developed by humans living in different natural and cultural environments in response to the pulsions of survival and transcendence. The objective of knowledge is to understand, to explain and to cope with selected facts and phenomena of reality, ideally reality as a whole. Mathematical modelling is such a strategy that deals with facts and phenomena. In this chapter, how knowledge is generated (cognition), how it is individually and socially organised (epistemology) and how it is expropriated by power structure, institutionalised and given back to the people who generated it through filters (politics) is discussed. These steps are treated in an integrated and holistic way.

*Classification:* M10 C30 C60

*Keywords:* modeling; generation of knowledge; cultural environment

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