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Symbols and language.

Kaye, Stacey et al., The future of the teaching and learning of algebra. Kluwer Academic Publishers, Dordrecht (ISBN 1-4020-8130-8). 227-264 (2004).

Algebraic symbols are investigated from both a linguistic and a semiotic perspective. In the first part of the chapter, a theoretical framework is presented based on Frege's notions of sense and denotation and language aspects of the algebraic symbol system that affect how individuals read collections of symbols are discussed. The chapter then focuses on the interpretative nature of assigning meaning to symbols, including discussion of a hierarchical framework based on an interpretation of Deacon's work. Meaning-making is also related to the activity of symbolising. The notion of a language focus is related to teacher preparation, and the chapter concludes with a brief examination of possible future directions for research related to algebraic symbols and language. Examples from research are given throughout the chapter to illustrate instructional aspects of the topics discussed.

Classification: H10 E40