

Chapter 3

A Summary of Results

Within the constraints of this Topical Survey, we have of necessity concentrated on the many theoretical constructs that are relevant to semiotics in mathematics education. Applications are mentioned, but we have included more details of only one of the many empirical research studies that have been conducted. Interested readers may follow the rich empirical results contained in many of the references cited. Each of the topics in the following list of items surveyed has the potential to generate questions for further empirical research.

- Basic ideas and applications of theories of de Saussure, Peirce, Vygotsky, and other seminal thinkers;
- The roles of visualization and language in semiosis;
- Relevant theoretical notions such as objectification and communicative fields;
- Embodiment and gestures in semiosis;
- Semiotic chains, semiotic bundles, and semiotic nodes;
- Other dimensions: sign systems and translations among them; intersubjectivity; the creation of innovative learning and teaching materials.

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