

DIALOGUES ON NUMBER THEORY

RINA ZAZKIS

Simon Fraser University

Script-writing, (also scripting, or imagined role-playing) is a novel method used in mathematics teacher education. This is where prospective teachers create a script for a dialogue that presents an imaginary interaction between a teacher and her students, or among different students. A script-writing task may present a prompt in a form of an interaction, which usually includes an incomplete argument, erroneous claim, or disagreement among the characters. The teachers are invited to continue the dialogue and address the resented problem. A script-writing task may also focus on a particular given proof and request students to write a dialogue in which particular elements of the proof are discussed. The scripting method was used as a pedagogical approach and a research tool in mathematics education (e.g., Koichu & Zazkis, 2013; Zazkis & Koichu, 2015; Zazkis, Sinclair & Liljedahl, 2013; Zazkis & D. Zazkis, 2014).

I will present the results of several recent studies, which utilize scripting, consider advantages and limitations of this approach, and suggest adaptation and implementation in other disciplines. In particular, I focus on the concepts of the elementary number theory that can be explored and refined, as script-writers create characters who discuss particular claims.

Seeking ways to support and improve mathematics teacher education is a continuous challenge. I will argue that engaging prospective teachers in script-writing is one possible way to help address this challenge.

References

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