



The Consequences of Mismatches Between the Promotion and Offering of International Professional Development Programmes for Mathematics Teachers

Michael Buhagiar, *University of Malta (Malta)*

James Calleja, *University of Malta (Malta)*

Mariella Galea, *Ministry for Education, Malta (Malta)*

Abstract

The EU-funded project *Supporting Mathematics and Science Teachers in Addressing Diversity and Promoting Fundamental Values* (MaSDiV) (2017-2020) promoted inquiry-based learning as a pedagogy that supports diverse and multicultural classrooms. This project included the design of a professional development (PD) programme for teachers. Drawing on implementation research (Century & Cassata 2016), this paper explores the consequences of mismatches between the promotion and offering of this PD programme when, using a cascade PD model, we implemented it in Malta with mathematics teachers. We have, in other words, a dual role in this study: PD organizers and researchers. Opting for a qualitative case study methodology (Yin 2018) that incorporates elements of self-study research (see Hamilton et al. 2008), our understandings are based primarily on the experiences of the mathematics PD leaders in the project who were both trainees (i.e. by attending a course at university to familiarize themselves with the programme materials and learn how to lead a PD programme) and trainers (i.e. by leading the PD programme with teachers in schools) at the same time. Data was collected through: surveys; teacher portfolios; researchers' meetings; and focus group discussions. The data was analyzed then using a thematic approach (Braun & Clarke 2006). Findings suggest that a promotion-offering mismatch, especially when a PD programme forms part of an international project, is: (i) inevitable in view of the personal interpretations that participants construe from the texts of PD promotion; and (ii) costly for everyone involved and for the quality of the PD experience itself. These results position mismatches as unwelcome occurrences. While it appears impossible to eliminate mismatches completely, particularly those embedded in contextual factors, the argument is made that the costs of mismatches could be mitigated by developing PD content and materials and by choosing a PD model that fit the context and circumstances of implementation. This calls for an approach to PD programme development and implementation that recognizes mismatches as a reality to be factored in right from the design stage onwards.

Keywords Promoting and offering PD programmes; Mismatch; International PD projects; PD leaders; Mathematics teachers

References

- [1] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- [2] Century, J., & Cassata, A. (2016). Implementation research: Finding common ground on what, how, why, where, and who. *Review of Research in Education*, 40(1), 169–215.
- [3] Hamilton, M. L., Smith, L., & Worthington, K. (2008). Fitting the methodology with the research: An exploration of narrative, self-study and auto-ethnography. *Studying Teacher Education*, 4(1), 17–28.
- [4] Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.