

Maija Taka

Aalto University

Co-author: Hanna Aarnio (School of Engineering, Aalto University)

"General worrying about everything" - student experiences of PhD process through a journey mapping approach

The surge in the number of PhD students combined with resource constraints for supervision calls for enhancement of the quality of supervision and academic well-being. Doctoral education urgently calls for practices and structures that provide agile support and learning opportunities for students and supervisors with diverse backgrounds and future career demands (Bastalich, 2017). Factors contributing to supervisors' work well-being include elements such as suitable numbers of supervisees, research group setting, community support, and confidence (Tikkanen et al., 2024), while those of doctoral students include paucity of supervision quantity and practices (Cornér et al. 2017). In this paper we map a comprehensive synthesis of the doctoral students' experiences during the doctoral studies process.

We studied a group of recent PhD graduates (N=12) with the journey mapping method (Marx, 2023) to identify their experiences, similarities, and differences along their journey. Further, we compared two groups from different collaborative research environments: students in Group 1 (N=6) were working in a research group actively investing in doctoral supervision, and those in Group 2 (N=6) were supervised in a more conventional way. Participants documented their doctoral journey into a canvas of personal experiences, including events, observations, activities, and feelings. They rated their personally recognized experiences from -3 to +3 based on the level of recognized negative or positive impact of the various activities and incidents regarding their doctoral study process. We analyzed the data by applying a mixed-method approach that included linguistic, numerical, and qualitative approaches. The gathered observations

were grouped into nine categories, with 2-8 sub-categories.

The largest group of the PhD graduates' observations focused on the research process (mean +0.70, 88% positive), and the second one on self-management challenges and solutions (mean -0.74, 30% positive). This finding shows that while most of the experiences of the research process were positive, the self-management issues substantially hindered the doctoral journey. The third largest group of these observations was on non-academic life, such as COVID-19 and family matters (mean +0.32, 53% positive), indicating how significant contributions these exogenous factors had on the doctoral journeys. Group 1 with actively developed supervision had more positive experiences overall compared to Group 2 with more conventional supervision. Self-management issues were emphasized in the later stages of the process and within the students in Group

2. The differences between the groups were found in the first phase linguistic analysis which focused on the words and the word clusters used by these groups indicating the presence of two distinct discourse communities (Swales, 1990). These novel insights showcase the diversity in the temporal variation of experiences. The results will be employed to tailor structured practices and processes for doctoral supervision to advance doctoral journeys from general worrying to as productive and enjoyable as possible in a resource-constrained environment.

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