

The Influence of Group Flow on Group Performance: A Research Program

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Although prior research has extensively investigated individual flow, research on group flow is nascent. Individual level flow is a mental state in which a person is fully focused on, involved in, and enjoying the task at hand, and researchers have started to investigate flow episodes involving more than one person (Heyne et al. 2011; Walker 2010). It is argued that flow in a group context “may be a qualitatively different phenomenon than flow experience in isolation”(Walker 2010)(p.4). Literature on social psychology provides ample evidence that action, cognition, and emotions of individuals are different than groups (Fiske et al. 2010). Survey studies report that group flow episodes were rated more enjoyable than those under solitary conditions(Walker 2010). Some studies suggest a correlation between the aggregate flow of the team members and the performance in a planning task (Heyne et al. 2011). Investigating the influence of flow in group contexts on group performance is important because it may contribute to more productive, collaborative, and often geographically distributed, IT enabled work environments.

There are many problematic issues with the emerging literature on group flow such as anthropomorphizing and spurious aggregation of retrospective individual states (Rousseau 1985). The proposed research program aims to solve these issues by proposing a multi-method approach to answer the following research questions: 1) How is group flow related to the individual flow of each group member? 2) How is group performance influenced by group flow? Throughout this research, we conceptualize group flow as a “collective state of mind” (Sawyer 2007) which occurs at given points in time when individuals are performing an interdependent task. We will examine if psychometric measures of group flow corresponds to concurrent, synchronized, or non-linear relationships between the individual flows of group members. This definition does not simply aggregate individual flow, nor does it engage in anthropomorphizing.

Specifically, this research program proposes to: i) Conceptualize and develop a reliable and valid method to assess group flow members using both psychometric (Studies 1 and 2) and neurophysiological measures (Studies 3 and 4); ii) Assess the impact of group flow on group performance (Study 5). In Study 1, we will explore the phenomenon of group flow using a qualitative approach to understand how and when concurrent

individual flow episodes among team members occur in a business context in order to explore the group flow concept. In Study 2, we will perform multiple data collections in order to develop, purify, and validate a group flow measurement scale. In Study 3, we will replicate and extend existing findings regarding neurophysiological measurements of individual flow episodes using a range of neurophysiological responses and technique such as EEG based hyperscanning (Astolfi et al. 2011; Lindenberger et al. 2009) from which it is possible to infer the affective, cognitive and behavioural components of the flow experience. The objective of Study 4 is to develop a reliable predictive model capable of identifying individual flow states and – through the concurrent, synchronized, or non-linear relationships between the individual flow of group members – to develop a model for identifying group flow. Finally, the objective of Study 5 is to investigate the impact of group flow episodes (using our predictive model developed in Study 4 and the group flow measurement scale developed in Study 2) on group performance.

The proposed research program is important for several reasons. A better understanding of group flow and its influence on group performance will lead to important theoretical and managerial contributions. The proposed multi-method approach will contribute to the nascent research stream of flow in social contexts.

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