Chapter 28
Expert Group Knowledge Triggers:
When Knowledge Surfaces

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ABSTRACT

Specialised knowledge is a key component of success in an organisational context that resides in the expertise of the organisation's personnel. To explore this situation, an ethnographic case study was chosen in which data was collected from a software development project. Extempore verbal exchanges occur through the interplay of project team members in weekly meetings, as the software was tested, analyzed, and altered in accordance with the customer's needs. Utilizing tacit knowledge from the project members as well as the group, new tacit knowledge surfaces and spirals, which allows it to build over time. Five extempore triggers surfaced during the research generated through explicit stimuli, allowing project members to share and create new knowledge. Through the use of ideas developed by Husserl and Heidegger, this study has cast some light on verbal exchanges that, through their interjection, allow significant learning to take place. The theoretical development places these learning triggers in an interpretive framework, which can add value to other software development projects.

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INTRODUCTION

Project management assumes a rational approach to decision-making by project managers, but recent empirical studies (Wynn, 2018) support the view that managerial judgment is the preferred mode of decision selection in many projects. Managerial judgment is based on situational assessment, and thus on time-constrained knowledge rather than on more prescriptive rational decision-making (Taylor, 2004). The surfacing of knowledge in projects has been conceptualised as emanating from a combination of improvisation, project management and knowledge management activities (Leybourne & Kennedy, 2015). The issue of improvisation, however, can be seen to be at odds with established best practice. Prescriptive, probabilistic and objective based project management systems are no guarantee of success and in some cases they can create an illusion of control that is not always justified (Hodgson & Drummond, 2009). All projects have a temporal focus and the dominant logic in this field is structured planning to achieve workable projects on time. Knowledge sharing is at the core of meetings where different forms of expert knowledge are required.

Tacit knowledge is a difficult form of knowledge to share and acquire during a project due to its intangible nature. Tacit knowledge is at the core of a knowledge based society and its exchange is still of great interest to researchers. How tacit knowledge is exchanged and used within the different project teams plays a vital role in project success. Banacu (2013) stresses the importance of tacit knowledge transfer due to companies needing it to obtain a competitive advantage. This research analyses a project team's tacit knowledge exchange within a software development meeting environment.

White and Perry (2016) argue that there has not been enough focus on the expert knowledge of software developers and their influence on the production of information systems. This is an area where software work is highly socialized but careers were highly individualized (Benner, 2008). Their mutual standing in the work overcomes the set of partial knowledge that they each possess. Being able to manage different knowledge sources through coordination and integration is a significant challenge during such a project (de Souza et al., 2006). The focus of the research lies in exploring knowledge exchange in software development projects and sheds light on how this expert group knowledge actualises and thus contributes to theory. Embedded observation in a particular project provided the empirical material for this research.

This article discusses the findings of a research project (Dreyer, 2018) which aimed to understand how tacit knowledge surfaces within the software development process. It examines how the group knowledge generated through expert interaction can be recognised in a software development project, and used to improve project implementation (Clancy, 2006). The paper consists of five sections. After this introductory section, theories relevant to the area of study are identified and discussed. The following section then outlines the research methodology deployed in the study. There then follows an evaluation of the data and a discussion of findings, and in the concluding section, the main outcomes of the research are summarised and implications are discussed.

THEORETICAL BACKGROUND

Project teams, and in particular those involved in software development, exist to provide workable solutions that incorporate and create new knowledge from the separate expertise held within the team. In discussing the idea of knowledge creation, the theory of tacit knowledge has been influential since the