Chapter 8

ACTION RESEARCH IN NEW PRODUCT DEVELOPMENT

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Abstract: This chapter explores the nature of action research in new product development. Characterized by pressures associated with product concept effectiveness and process performance, new product development is a challenging but rewarding setting for action research. By re-assessing a previously reported action research study in the automotive industry, we identify and analyze characteristics of managing such research in new product development. On the basis of this assessment, the chapter complements previous research on managing action research projects with specific insights applicable to settings in which new technologies are being built and tried out.

Key Words: action research, new product development, prototypes, wide-audience client

1. INTRODUCTION

The client-system infrastructure of an action research project specifies its research environment (Baskerville & Wood-Harper, 1996; Susman & Evered, 1978). In particular, it defines the researcher-practitioner relationship including dimensions such as authority level, degree of formalization, project initiation process, researcher role, risk taking, and data collection. Previous research highlights the centrality of controlling and managing the action research environment as to secure research rigor and relevance. To this end, the literature reports sets of aspects, principles, criteria, and lessons to do this (Avison, Baskerville, & Myers, 2001; Davison, Martinsons, & Kock, 2004; Lau, 1999; Mathiassen, 2002). A common denominator of this literature is its orientation towards organizational development.

Given that “IS researchers should be actively involved in studies where technologies are being built and tried out – not after the fact when they enter
the market” Lyytinen and Yoo (2002a, p.387), action researchers may need to develop research alliances with those who drive technological change. Indeed, packaged software (Sawyer, 2000) and software bundled with physical products (Joglekar & Rosenthal, 2003) increasingly shape the utilization of information technology in organizations. Thus, we need to learn how to conduct action research in settings where this shaping takes place.

This chapter explores the nature of action research in such a setting: new product development (NPD). Characterized by pressures associated with product concept effectiveness and process performance (Brown & Eisenhardt, 1995), NPD is a challenging but rewarding setting for articulating the new conditions for information systems action research. By re-assessing a previously reported study in the automotive industry (Henfridsson & Lindgren, 2005; Olsson & Henfridsson, 2005), this chapter identifies and analyzes characteristics of managing action research in NPD. On the basis of this assessment, the chapter complements previous research on controlling and managing action research projects with specific insights applicable to NPD. These insights are valuable contributions to the ambition to make information systems research part of the settings in which new technologies are being built and tried out.

The remainder of the chapter is structured as follows. The following section reviews the action research literature with a specific focus on managing and controlling aspects. Section three provides a brief review of the NPD literature. Following these literature sections, section four outlines an action research study conducted in the automotive industry. On the basis of this study, we generate a set of advices to action researchers who intend to conduct action research in NPD settings. While the proposed advices conform to the extant guidelines for managing and controlling action research, they suggest ways to handle specific product development aspects that the generic guidelines virtually overlook.

2. MANAGING ACTION RESEARCH

Action research has for long been recognized as a valid research method in applied fields such as organization development and education (Baskerville and Myers 2004). In light of frequent calls for information systems researchers to make their research more relevant to practice, action research has been identified as one potential avenue. Information systems researchers have therefore tried to conceptualize the nature of information systems action research as a scientific method (McKay & Marshall, 2001). In the quest of emergent standards that help action research to become a valid research method, there have been attempts to show how various forms