Chapter 15
Collaborative Design: An SSM-Enabled Organizational Learning Approach

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ABSTRACT

Within the context of a three year applied research project conducted from 2003-2006 in a North American university library, staff were encouraged to reconsider organizational assumptions and design processes. The project involved an organizational leader and an external consultant who introduced and collaboratively applied Soft Systems Methodology (SSM) practice. Project results suggest the efficacy of using 'soft' systems thinking to guide interaction (re)design of technology-enabled environments, systems, and tools. In addition, participants attained insights into their new roles and responsibilities within a dynamically changing higher education environment. Project participants also applied SSM to redesign ‘in house’ information systems. The process of employing systems thinking practices to activate and advance organizational (re)learning, and initiating and elaborating user-centered interaction (re)design practices, culminated in a collaborative design (co-design) approach that readied participants for nimble responsiveness to continuous changes in the dynamic external environment.

INTRODUCTION

Amidst rapid technological change, aggravating financial uncertainty, and escalating community expectations, librarians at California Polytechnic State University in San Luis Obispo (Cal Poly, USA) recognized that nimble organizational responsiveness required reinventing library processes, procedures, and services. They understood that this would require changing how they think
Collaborative Design

and what they think about, as they readied themselves for new roles in the academic enterprise.

Concurrently, librarians in this comprehensive polytechnic teaching university observed a consistent pattern of declining gate counts and diminishing transactions, despite student enrollment increases. These data suggested that even the traditional “library as place” role was eroding at this institution, which offers a wide range of bachelor’s and master’s degree programs. Librarians were not alone in recognizing that the library was increasingly marginalized on campus: when campus administrators announced permanent budget cuts, the library’s share was consistently greater than other academic support units.

So when a new group leader was hired in September 2003, public services librarians agreed to examine the underlying assumptions that historically guided organizational decision making. Systems thinking was used to reconsider the academic library’s purpose(s), including project participants’ roles and relationships, within the context of the university mission. This exploration also benefited from learning-centered consultation with user communities, which served to refine the alignment between organizational intentions, actions, and outcomes.

Within the systems thinking community, ‘soft’ systems thinking is widely recognized for its contributions to organizational learning through revisiting workplace assumptions (e.g., Ackoff, 1998; 1999; Ackoff et al., 2006; Checkland, 1981; 2000; Flood & Jackson, 1991; Flood & Romm, 1996; Jackson, 2000; 2003; Midgley, 2000; Checkland & Winter, 2006). For this project, Soft Systems Methodology (SSM) was selected because of its proven usefulness in building larger frames of reference (Checkland, 1981; 2000; Checkland & Holwell, 1998a; Checkland & Poulter, 2006; Checkland & Scholes, 1990; Checkland & Winter, 2006), which librarians recognized as necessary to bridge boundaries within the library and across the campus.

During a three year project conducted between 2003 and 2006, nineteen university librarians and thirteen support staff were led by the group leader (Somerville) through an organizational learning initiative facilitated by an external trainer and project evaluator (Mirijamdotter), who introduced both Soft Systems Methodology and also Scandinavian ‘participatory design’ (Bansler, 1989; Bratteteig, 2004; Iivari & Lyytinen, 1998; Jansson, 2007; Langefors, 1995; Löwgren & Stolterman, 1998; 2004). Library leaders asked the external trainer and evaluator to deliver systems thinking workshops and conduct regular outcomes evaluations over the course of the project. Mirijamdotter was selected because her participatory design and user involvement orientation were compatible with the strong collective bargaining (labor union) orientation of the library workplace.

In this instance, Somerville and Mirijamdotter aimed to depart from typical SSM interventions in which a consultant enters the workplace for the life of the project and then, upon her departure, SSM usage ceases. Therefore, in addition to advancing SSM-guided projects, the leader and the consultant articulated a transferable leadership model for readying a workplace environment for rethinking, repurposing, and relearning. Thus, the purpose of this paper is to offer an account of using soft systems ideas to generate user-centric collaborative design ideas. The paper also illustrates the benefits of reflective practice focused on organizational learning. Finally, the efficacy of this interaction approach—which transformed organizational outcomes—inspired creation of a transferable leadership model.

In the following section, we introduce the underlying assumptions of our participatory action research approach followed by the guiding SSM framework. Next, we present student-generated studies that provided initial ‘finding out’ data and dialogue-based modeling practice, using Rich Pictures to represent various perspectives. Results fortified library staff resolve to engage in the change initiative, fueling their continuation of this user-generated approach, as illustrated by the