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FOSTERING AN INTERNET-BASED LEARNING NETWORK FOR COMMUNITY HEALTH THROUGH ACTION RESEARCH

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Research has suggested that computer-supported coordination work (CSCW) systems can change the nature of collaboration among organizations, the patterns of workgroup processes, and the use of information and knowledge in problem solving (DeSanctis et al. 1991; Hutchison et al. 1995; Delisle 1989). Many factors can influence the performance of groups and CSCW systems, including individual characteristics (Massey and Clapper 1995), nature of tasks and technology used (Rice 1992) and such social factors as group influence and processes (Bettenhausen 1991). Also of interest are the effects of facilitation and support on user adaptation of the technology (Dickson 1993; Zigurs, Poole and DeSanctis 1988). One approach that may enhance the acceptance of CSCW systems is through action research. This is where the researchers and users collaborate to diagnose problems, plan and implement appropriate interventions, then reflect upon their experience for theory development, learning and improvement in an iterative fashion (Checkland 1991).

In this paper, we describe an intensive study where action research is used to influence the evolution of an Internet-based Collaborative Workgroup System (ICWS) within a community health research training program currently underway as a pilot project in a Canadian province. The theoretical framework of this study is based on the group development model by Mennecke, Hoffer and Wynne (1992) and learning networks by Harasim et al. (1995). The group development model takes into account factors that affect the emergence of a group such as the characteristics of the task, group and context; the kinds of group session, facilitation, and technological support available; the extent of individual perceptions, group development and performance achieved; and the type of group learning that occurred over time. The learning network provides the cyberspace and mechanisms where participants can construct knowledge by formulating ideas that are shared with and built upon through the reactions and responses of others. We propose to operationalize this framework by way of action research to facilitate the development of the group based on factors and processes from the group development model and learning networks. Our interventions consist of helping the group to identify their needs or problems, plan and implement solutions, and learn through the ICWS. Hence, our main research question is whether this ICWS can be used to influence the emergence and performance of the group over time as a learning network for community health.

The study design involves detailed exploration of twenty-six participants from seventeen health regions across the province and twelve teaching and support staff over two years on their use of the ICWS, emergent group processes and performance in community health. The research site consists mainly of the Internet cyberspace where participants and staff interact to share knowledge, solve problems and learn from each other. Both quantitative and qualitative methods with a longitudinal view are used including tabulation of projects completed, system usage and patterns; content analysis and interpretation of responses from interviews, focus groups and surveys; and comparison of findings over time as self-controls for changes and trends. The group’s perceived usefulness of the ICWS, validated through actual usage logs, and the number of projects completed over time may be considered measures of success for the network. The training program commenced in May, 1996, with eight weeks of classroom training on research methods, health economics, policy planning and management skills. Facilitation of the group and usage data collection began in September with preliminary reporting expected by early December.

REFERENCES


