Cybercells and the Integration of Actual and Virtual Groups

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INTRODUCTION

A cybercell describes the integration of actual and virtual groups in which face to face members extend their discussions to collaborate with virtual visitors (Stevens & Stewart, 2005). Cybercells enable groups of people meeting in physical spaces to engage with virtual visitors using a range of contemporary and emerging technologies. Teachers, for example, are provided with opportunities to discuss their work with other teachers on-site and on-line simultaneously. Students can also discuss their work in classrooms and collaborate with their peers located in other schools who are able to participate in their learning space virtually. By extending one’s learning from actual (face to face) spaces to include virtual visitors, learning environments can be extended.

BACKGROUND

The advent of school district intranets in rural Atlantic Canada, within which classes in a growing number of schools are networked with one another through the internet, has led to collaborative ways of organizing teaching and learning. Through intranets teachers in rural schools have been able to provide extended learning opportunities to a growing number of students within these new structures that facilitate face to face and virtual instruction. The creation of the first school district intranet in 1998 was an attempt to use information and communication technologies to provide geographically-isolated students with extended educational and, indirectly, vocational opportunities (Stevens, 2003). The development of further intranets in the province, based on the internet, has encouraged a conceptual shift by teachers, principals, educational administrators and policy makers from a perception of schools as closed, autonomous structures to open learning environments within which actual (face to face) and virtual classes can be integrated in both real and delayed time. In the process of developing e-teaching and e-learning within intranets in rural Newfoundland and Labrador, teachers, learners and administrators have had to adapt to the new, electronic educational structures of school district intranets within which individual schools become constituent sites. In the open teaching and learning environment of an intranet, participating institutions academically and administratively interface for that part of the school day during which classes are being taught. The school district intranet is a conceptually and operationally-different educational structure from the traditional and, by comparison, closed educational environment of the autonomous school with its own teachers and its own students. Teachers who have been appointed to the closed, autonomous learning environments of traditional schools frequently discover that the administration of the curriculum in a school district intranet requires collaboration with other members of their profession who are located across a range of sometimes distant sites. Many teachers discover that the classroom positions to which they were appointed in traditional (closed) schools have, in effect, been re-constituted as collaborative roles in open electronic environments. As well as teaching in traditional classrooms, a growing number of teachers in Newfoundland and Labrador also now teach classes in other schools in their districts. In doing so, they have both actual (physical, or face to face) as well as virtual teaching presences across the diverse sites that form the province’s school district intranets.

Since the inception of the first school district intranet in rural Newfoundland and Labrador, a ministerial inquiry into “distance learning in classrooms” was held that required extensive interviewing of students, teachers, administrators and technology providers together with an examination of research findings based on regular data collection of the initial years of its operation (Government of Newfoundland and Labrador, 2000). The outcome of the ministerial inquiry was