Chapter XVI

Learning and Anxiety: Exploring Individual Judgement Processes in a Learning Environment with a Group Support System

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Abstract

This chapter explores the process of making individual judgements within a group meeting environment that employs a “low-impact” form of group support, based on handset technology. A series of field-based case studies are reported in summary, and one in postgraduate education in more detail. These serve to demonstrate the potential for suitably designed group support systems (GSSs) to aid groups to overcome certain fundamental difficulties with which they have to contend. The protocol used is described, and a conceptual framework is proposed with which to explain practice. The framework centres on the encouragement of conversation that is focussed on the reasons for differences, coupled with the reduction of personal anxiety, achieved with flexibility offered through the GSS meeting environment.
Introduction

A broad spectrum of group-decision (or process) support technologies (or systems) has been developed since the early 1980s, which is referred to using the generic term, group support system. Most of these GSSs utilise some form of network of room-based computers, wherein each member of the group uses an individual workstation. Research has shown that these systems may be extremely useful to brainstorm ideas and help support the group process (Nunamaker, 1997; Nunamaker, Dennis, Valacich, Vogel, & George, 1991).

We have developed a more portable GSS that makes use of a wireless handset approach in order to maintain face-to-face interactions, augmented by the additional channel of communication provided by the technology, known as Teamworker (Gear & Read, 1993). Each member of a group is provided with a wireless handset. This comprises a 0-9 numeric keypad, styled to mimic a telephone layout. We term this type of system as a “low-impact” GSS, because the technology has a lower profile within the group when compared to networked systems, and focus is maintained on a single, group screen. The difference in technology between networked systems and “low-impact” type systems, and the resulting differences in the group process, means that results of studies with the former, cannot, necessarily, be transferred to the latter.

At appropriate points of a meeting, a group member can enter their judgement, vote, or opinion on an issue, by pressing a key on their handset. The messages are all received at a single, personal computer running selected software for the meeting type. The computer is linked to a large screen in order to display the set of judgements that have been entered back to the group, in various graphical formats. Typically, this feedback might be a histogram showing the range and distribution of inputs, while maintaining personal anonymity. The handsets can be used to enter a range of judgement types, including scoring, voting, or comparing options; assessing parameters such as risk; and assessing feelings or emotions.

This “low-impact” GSS is designed to overcome emotional barriers to the use of technology, whilst maintaining face-to-face communication, aided by a single, group screen. The chapter is aimed at extending existing theory, stemming from observations of a series of field applications using this GSS design. One educational application, the use of business cases with postgraduate business students, is developed briefly. We introduce a conceptual framework that builds on ideas that seek to explain how a “low-impact” GSS environment can enhance individual and group learning in face-to-face group sessions.

The perspective adopted proposes that a group of individuals working on a task can learn (develop or change their beliefs, ideas, etc.) by exploring the reasons for differences of opinion in conversation, provided each member is able to express their feelings without inhibition from the social pressures that such a process may produce. In other words, the anonymity provided by the GSS environment enables participants to express their view without the risk of being publicly undermined. When making personal judgements in a less “risky” environment, learning, or taking on new ideas and changing opinions, may be more likely to occur without jeopardising one’s standing within the group.