1. MANAGEMENT EDUCATION AND PROBLEM-SOLVING SKILLS

Management education is expected to produce graduates who have the knowledge and skills needed to function effectively in the workplace. However, management programs have long been criticized for their failure to prepare graduates adequately for dealing with daily business reality. Many critics of management education argue that graduates are not prepared to respond to work situations in ways for which employers are calling (Bigelow, 2001). A recurring criticism of graduates in management concerns their problem-solving abilities (Boyatzis, Cowen, & Kolb, 1995; Business-Higher Education Forum, 1999). In this article, we explore how managerial problem-solving abilities develop over time. We examine how cognitive performance varies from managerial novices (students) to those in the work place with high levels of expertise. Finally we provide an example of a learning environment in which the aim is to foster the solving of ill-structured managerial problems. The instructional design of this learning environment draws on outcomes from the current and previous studies of the expertise required for problem-solving.

Today, problem-solving abilities are expressed as core skills and competencies in management curricula. Management education is considered indispensable in contributing to the acquisition of such skills and competencies. Yet management education has been regularly criticized on
the grounds that graduates are not equipped with appropriate problem-solving skills. In other words, they are too alienated from the managerial workplace (Business-Higher Education Forum, 1999). A weakness perceived by employers is that business schools currently focus more on problem analysis than on problem finding, creating novel approaches to problem solution and risk taking (Porter & McKibbin, 1988).

Those who employ management graduates do not complain of a lack of specialized knowledge, rather they criticize their ability to face today’s problems and to acquire new knowledge (Gijsselaers, 2000). Given their selection criteria, employers seem to prefer graduates with generic skills. A possible reason for this is that current information and knowledge has a short lifecycle and accumulates more rapidly than ever (Boshuizen, 2003; Gijsselaers, 2000). Whatever the reason for this mismatch between the qualities of graduates and the expectations of the business world, schools of management should not fall into the trap of neglecting the role of knowledge in their curricula. As many authors argue, generic problem-solving abilities can only be acquired through the use (application) of content knowledge (Bowden & Marton, 1998; Bransford & Schwartz, 1999). In this context, Bransford and Schwartz (1999, p. 94) warn that “A potential danger of the preparation for future learning perspective is that it could lead to claims such as ‘I’m teaching for future learning, so I don’t worry about mastery of content.’” Therefore, we take the view that problem-solving skills can only be acquired and developed in the context of applying content knowledge.

During the 1990s business schools made increasing efforts to address criticisms of management education by, for example placing greater emphasis on skills acquisition and designing multidisciplinary courses intended to foster integration between disciplines in developing the managerial skills of students. Despite these efforts, the Business-Higher Education Forum’s 1997 report, “Spanning the Chasm”, noted that changes were still needed to facilitate the transition from high school university campus-to-the workplace, and to encourage closer links between the academic and corporate sectors. Similarly, a survey of employers by ACNielsen (2000) concluded that graduates are deficient in various skills and have a lack of understanding of business practice. Overall, there is still little evidence that undergraduate programs have responded sufficiently to these criticisms (Bigelow, 2001).

Despite all the attempts at reform, many business schools still face the problem of bridging the gap between educational and professional practice. This creates a challenge for management education as it seeks to provide a better fit with the demands of the workplace. In order to optimise management curricula (content) and instruction (form) it is important to get a better understanding of how management education can equip students