CHAPTER 1

DEVELOPING 'MANAGERS FOR ACTION'

INTRODUCTION

Over sixty years ago, Charles Gragg, one of the originators of case teaching at the Harvard Business School, stated: "Education in the professions should prepare students for action."[1] As teachers of management, we have long shared Gragg's value concerning the importance of this purpose of education. Indeed, our initial interest in problem-based learning (henceforth referred to in this volume as 'PBL') during the 1980s resulted from our own search for approaches to teaching and learning that met this criterion for education in the professions. Our subsequent experience using PBL management education programs in North America, Australia and Asia reinforces our belief in its efficacy as an approach that prepares 'managers for action.'

In this book we share what we have learned from our experience using PBL in management education,[2] as well as from research on the use of PBL in higher education in general,[3] and management education in particular.[4] More specifically, this volume explores and documents how problem-based learning can be employed to 'prepare managers for action.'

In this chapter we discuss the changing context of management in this era of globalization and the implications for management education. We assert that the changing global context of organizations has created a new, more ambitious set of goals for higher education programs that seek to prepare management professionals. This changing context has given rise to several imperatives to which higher educational institutions must respond if they are to make relevant, meaningful contributions to society. These imperatives demand experimentation as well as implementation of innovative educational approaches such as problem-based learning.

The adoption of innovations like problem-based learning requires investment of significant resources whether we are talking in terms of institutions, programs, or individual faculty members. There must, therefore, be a significant reason to undertake such programmatic changes. For those considering the adoption of problem-based learning (PBL), we seek to clarify two issues in this chapter:

- First, what are the educational imperatives emerging from this changing context of organizations and management education?
- Second, how does problem-based learning address these emerging needs?

However, before proceeding further we would like to clarify a key assumption underlying this entire volume. *Although we believe that PBL represents a potentially powerful approach to preparing 'managers for action,' at no point do we advocate for others to employ PBL as the only method of teaching and learning for use in all schools, by all instructors, and for all subject matter.* PBL is one of a number of approaches that, used skillfully, enables us to meet the ambitious goal of preparing 'managers for action.'

In this book, we hope to clarify not only the range of ways in which we can employ PBL in management education programs, but also the conditions that bear on its effectiveness. PBL may not be suitable for all subjects or learning objectives. Moreover, factors such as program and course goals, time duration of the lesson, learner readiness or learning style, class size, instructor skill, and facility configuration also weigh on the decisions of whether, when, and to what extent to incorporate PBL into a management curriculum.

Thus, we assert that educators should strive towards employing a variety of instructional approaches that actively engage students in learning to think and *do*. In our schools, we are quite eclectic in our selection of active learning methods. These include case teaching, project-based learning, inquiry learning, simulation, reflection, Socratic questioning, cooperative learning, observation, and role play. We believe that even teacher-directed instruction (i.e., lecture and discussion) can be effective when conducted skillfully with a learner-centered orientation.[5]

THE CHANGING CONTEXT OF MANAGEMENT EDUCATION

A Continuing Crisis in Higher Education

Even a casual reading of the literature could lead one to conclude that higher education has been in a constant state of crisis over the past 50 years.[6] Claiming the existence of a 'crisis' is a tried and true way of attracting attention. Nonetheless, the focal issues intertwined with this 'crisis' have changed in recent years, especially in professional schools.

As suggested above, we began our own exploration of problem-based learning almost 20 years ago, inspired by PBL pioneers in medical education. Many of the concerns expressed about the state of medical education at that time seemed, in our view, equally relevant to management education.[7] Critiques of medical education during the 1980s included the following main points.

- Studies indicated that medical graduates tended to forget a large portion of the knowledge base included in their coursework by the time of graduation; this was attributed largely to instructional methods that focused on memorization and development of basic understanding of bodies of functional knowledge.
- Doctors lacked skills in applying what they had learned to people; this was attributed, at least in part, to a medical curriculum that was organized around academic disciplines with distal linkages to the problems that patients present to doctors.

- There was a growing perception among the public that doctors did not "care" for their patients; this was linked to a lack of attention to the development of attitudes and skills in working effectively with clients.
- Leaders in the field of medicine feared that doctors were ill-prepared for the independent, continuing learning necessary in a context where the knowledge base was changing rapidly; this was related to educational approaches that made the learner overly dependent upon the teacher and which failed to prepare future physicians for life-long learning.

These critiques were accepted widely enough in the medical education community to result in major revisions to university curricula and the adoption of new teaching methods. Problem-based learning was one of the significant educational innovations adopted by medical schools in response to these critiques. During the 1980s and 1990s, leading higher medical schools around the world (e.g., Harvard University in the USA, McMaster University in Canada, and Maastricht University in the Netherlands among many others) implemented problem-based learning as *the major organizing feature* of their medical education curriculum.

During this same period, business schools were largely shielded from this crisis. There was a rapidly expanding demand for management education across the globe. This reduced pressures for innovation and change and led to a higher degree of comfort and self-satisfaction among business schools.

More recently, however, a series of critiques of MBA programs have appeared from influential sources. These have called into question the quality of MBA education.[8] The tenor o the comments recall some of the criticisms lodged against medical education 20 years ago.

For example, Henry Mintzberg questioned whether management programs are producing graduates with the right stuff to manage people and organizations for results.[9] His critique included the following points:

- Many MBA students enter their programs with an insufficient base of experience upon which to develop the 'wisdom of practice' that should be a fundamental outcome of a *Master* Degree program in management.
- In the absence of students with significant management experience, graduate programs teach what the faculty members know best, their own academic disciplines.
- This results in an MBA curriculum that is organized around the delivery of functional knowledge (i.e., marketing, economics, decision science, finance) and which emphasizes the development of skills in analysis and calculating.
- "Conventional MBA students graduate with the impression that management is analysis, specifically the making of systematic decisions and the formulation of deliberate strategies."
- Graduates are, therefore, often ill prepared for the predominant 'work of managers' which involves solving messy, value-laden, ambiguous problems that often have no clear solution.[10]

Warren Bennis and James O'Toole, eminent management scholars for the past several decades, weighed in with a scathing critique of conventional MBA programs. Their critique has been summarized as follows:

> [T]hey argue that: business schools are too focused on 'scientific' research; are hiring professors with limited real-world experience; and graduating students who are ill equipped to wrangle with complex, unquantifiable issues (Bennis and O'Toole, 2005, p. 96). They call the reality of business – the "stuff of management". They also contend that when applied to business – where judgments are made with messy and incomplete data – statistical and methodological wizardry can blind rather than illuminate (Bennis and O'Toole, 2005, p. 99). Furthermore, they comment that the problem is not that business schools have embraced scientific rigor but that they have forsaken other forms of knowledge (Bennis and O'Toole, 2005, p. 102).
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> Topics that may be addressed are: the scientific model versus the professional model from other intellectual angles and cultural settings; the competence and the knowledge of business schools; the contribution of business education to business practice; the purpose of business school; what is taught – how and why – at business schools; the influence from academic journals on business school curriculum; and the tenure and reward structures in academia.[11]

James Heskett, a noted management professor at Harvard University, concluded that management schools must address fundamental questions of effectiveness and relevance.

> Perhaps it is time to ask ourselves a number of questions. First, have business schools in general lost their relevance? Are they preparing graduates in useful ways for careers in management? If there is room for improvement, can it be achieved within the "academy," where business schools seem to be caught in a tug-of-war between the "scientific" and "professional" models? Or will it increasingly be achieved in the institutions created and run by large business enterprises to train not only their own employees but those of other organizations as well? What do you think?[12]

As in the domain of medical education, these critiques highlight the tension that exists among the interests of faculty, the expectations of students, the goals of the university, and the needs of employers. While no consensus has emerged in response to these critiques, they have stimulated the leaders of business schools to reconsider the goals of graduate education programs in management.

The Changing Goals of Management Education

Management education exists within a broader societal context. Graduates go on to work for a broad range of private and public sector organizations. Hopefully they add value, gained in part from their education, to their organizations and society. As such, higher education programs must respond to changing societal demands in order to remain relevant and competitive.

With this in mind, it is clear that management education has operated in a global context of rapid change that has accelerated since the early 1990s.[13] The sources of these changes include the following.

- Growth and integration of a global, increasingly free-market economy has raised the standard of competition in all sectors that provide goods and services.

- Greater openness of political systems among nation states has increased access to global information and facilitated cross-border business.
- Developments in information technologies have fundamentally changed the way in which business is conducted allowing for less expensive communication, easier sharing of information, and greater efficiencies in production and management of goods and services.

These change forces have brought about fundamental changes to the ways in which organizations are managed. For example, over the past decade we find the following management trends increasing in global prevalence:

- Transacting business across national boundaries has become a fact of life, not just for large corporations but also for small and medium size enterprises (SMEs).[14]
- Organizations have undertaken redesign in response to more open competition, increasingly adopting more diverse organizational structures.[15]
- There has been an increased emphasis on entrepreneurship as an engine of global economic growth.[16]
- Technology has become an enabling force, allowing organizations to manage and exploit information more effectively and comprehensively.[17]
- The recognition that ethical crises and environmental problems located in a single nation or organization become magnified in a global society has led to greater emphasis on moral leadership and social responsibility.[18]
- There has been an increased emphasis on linking corporate goals with human resource practices, especially through the use of performance measurement and management.[19]
- Knowledge has come to be viewed as a key currency of organizations, one that requires proactive management.[20]
- Capacities for innovation and change have become competencies that distinguish organizations that thrive vs. ones that flounder in the midst of a turbulent environment.[21]

These changes in the management of organizations call for managers who possess a broader set of both leadership and management capacities. In response, educational institutions will need to undertake significant adaptations in the management curriculum. The first area of adaptation concerns program goals. In our view, today's management curriculum must address the following:

- *Problem-solving skills and attitudes:* Confidence to take on problems as opportunities, as well as the ability to think systematically, analytically, critically, and creatively.
- *Global perspective:* A broad perspective based on an understanding of issues and opportunities in both the local and global environments.
- *Leadership competencies*: The ability to work collaboratively in creating a vision for the organization, developing a socially responsible

strategy for implementation, and motivating others to join in working towards its achievement.

- *Management competencies*: Ability to use skills in managing projects, resources and business processes to achieve results efficiently.
- *Ethical judgment and decision-making:* Awareness of the ethical impact of decisions and the importance of values in managing people and organizations in a diverse, global society.
- *Adaptability, self-reflection, and personal development:* Understanding ones' own value orientation, developing a capacity for reflection, and cultivating skills and attitudes that support lifelong learning.
- *Communication:* Ability to communicate effectively, orally and in writing, in working with culturally diverse audiences.
- *Functional knowledge:* A comprehensive knowledge of the functional areas of management including the ability to employ relevant social science theories and craft knowledge in managing organizations.
- *Managing information and technologies*: Knowledge of and ability to plan for and use information technologies as tools for productive management of organizations.

While neither universal nor all-inclusive, these competencies represent increasingly accepted goals for graduate management education. We wish to highlight several features of these goals. First, they are considerably more ambitious than those delineated for management education in the past. No longer is preparing graduates with *knowledge about management* considered sufficient. Knowledge, thinking, attitudes, values, skills, and the ability to act upon them are all grist in the 21st century management education mill.

Second, as a consequence of globalization, these goals are rapidly converging into a set of *global expectations* for graduate management education. A decade ago, futurist Kenichi Ohmae observed that consumers around the world are developing similar expectations about what they ought to be able to buy as well as about what it is they want to buy.[22] This global trend now applies to education as well as restaurants, hotels, hotels and airlines. Educational content, quality and modes of delivery are increasingly scrutinized through a common 'global lens' by consumers and accrediting agencies.

Finally, these increasingly ambitious, global goals are challenging the effectiveness of the "core technologies" traditionally employed by higher education programs over the past century. Management education programs, like those in the field of medical education, must seek innovative methods of achieving these goals. This changing context has created an emergent set of imperatives for management education in the 21st century.

FIVE IMPERATIVES FOR 21ST CENTURY MANAGEMENT EDUCATION

In designing management education for this changing context, we have identified five imperatives that demand our attention. They include the following:
1. Learn to 'manage for action'
2. Learn to think globally and apply knowledge locally

3. Learn to lead and to manage
4. Learn how values, emotions and ethics underlie leadership
5. Learn to integrate technology into management practice.

The 1st Imperative: Learn to Manage for Action

Some critics maintain that the emphasis on analysis and calculation prevalent in MBA programs produces graduates who suffer from 'analysis paralysis'.[23] Students, well versed in business cases, often believe that the job is done when they have finished their analysis, drawn conclusions and made recommendations for solution. In fact, they have no idea how to *act* on the analysis. Yet, this lack of capacity to act is seldom revealed because our expectations do not extend to this level of knowledge application. Saying 'what they would do' seems insufficient to us as a goal for management education.

Learning to 'manage for action' reflects Gragg's normative admonition that education in the professions should emphasize the application of knowledge.[24] We note recent work in the cognitive sciences that has begun to define the conditions that make 'learning for action' possible.[25] John Bransford, for example, elaborates on the learning conditions and processes that enable students to "use knowledge as a tool" for problem-solving.[26] We shall discuss these conditions in Chapters Two and Four, as well as the ways in which problem-based learning achieves them.

For the purpose of this chapter, however, we limit our discussion to an explanation of what we mean by learning to 'manage for action.' Phrases such as 'managing for action' and 'using knowledge as a tool' reflect our belief that students should learn how to transform the fruits of analysis into practical actions. By using the phrase, *managing for action*, we are suggesting that students be able to demonstrate the capacity to:

- Analyze and define problems thoroughly and systematically;
- Search for knowledge that is relevant to the problem from formal and informal sources;
- Consider the contextual conditions that impact on the use of that knowledge;
- Identify and develop solutions that are well-informed, practical, and justifiable in light of the information and assumptions provided;
- Enact their solutions and experience the consequences;
- Reflect productively on what they learned from their experience.

The last two bullet points represent the distinctive value-added contributions that we contend our education programs should strive to make. Indeed, in the world of work, the greatest learning often occurs when our solution does *not* turn out as we expected. This causes us to stop and rethink our definition of the problem, as well as the conditions that might have affected the implementation of our solution. Although this type of reflection leads to far deeper understanding and learning, it is more difficult to achieve when the students lack real world *experience*. This was a central premise of Mintzberg's critique of MBA education.[27]

PBL seeks to foster the capacity to 'manage for action' in several ways. We describe these at length in subsequent chapters. In brief, they include:

- Placing students in self-managing project teams through which they are able to experience a variety of leadership and team member roles;
- Transforming the classroom into a *project environment* in which students set goals, manage and delegate work tasks, collaborate in finding relevant knowledge resources, address team problems, and achieve results under tight time constraints;
- Using this project environment as a 'crucible' in which students experience the frustrations, pressures, joys and other emotional states that characterize the work context of the manager;
- Requiring students to *implement, to the greatest extent possible, the conclusions and recommendations* that they draw from their problem analysis.

The PBL methodology is discussed in detail in Chapter Two. For the purposes of this chapter, we only wish to illustrate how PBL seeks to bridge the gap between analysis and action. As in a business case, each PBL project presents a problem(s) that requires solution. In a PBL project, however, student teams are responsible for delivering an *authentic product or performance* that demonstrates or conveys the recommended solution. To the greatest extent possible within the constraints of the classroom setting, this product or performance takes the *form* in which the solution would be expressed in the workplace.

Examples of solution *products* include a memo, strategic plan, website, or e-marketing strategy. Examples of *performances* include presentation of a strategy, role play of employee selection interview, role play of a supervisory conference, simulation of an organizational change, or a management of a meeting.

Readers may feel, at first glance, that our emphasis on *implementation* is overly simplistic or contrived. We ask you to keep an open mind on this point. We discuss the nature, range and use of these solution products in Chapters Two, Three and Four. We provide in-depth descriptions of their use in the PBL projects that comprise Part II of the book.

At this point, suffice it to say that this orientation towards transforming solutions into actions has numerous implications. For example, by placing the solution in the form used in the workplace, students are required to think about the solution in quite different terms. They immediately begin to place more emphasis on issues of practicality and feasibility. Performance-based solutions are especially effective at placing students in a position where they must face the consequences of their actions. Thus, even when the product or performance is contrived, it begins to bridge the chasm between *learning to analyze* and *learning to manage for action*.

By way of example, we may refer to a leadership case from the Harvard Business School[28] that we have used both as a "case" and as a "PBL project." As a business case, the students confront a management problem that has occurred in the workplace, refer to leadership theory to inform their analysis, draw conclusions as to causes, and offer recommendations for solution.

After redesigning this business case as a PBL project, we ask students to convey their solutions through a product or performance. Sometimes we have asked students to write a memo (i.e., a product) from the manager to her supervisor that conveys the recommended decision solution. At other times, we have asked students to engage in

a role play of a supervisory intervention (i.e., a performance) between the manager and the staff member who is presenting the problem.

We expect that it would be easy for the reader to imagine how the role play of a supervisory conference could lead students towards the goal of *learning to manage for action*. The students must translate their *theoretically-informed solution* into practical actions that include effective use of verbal and non-verbal behavior. Moreover, in the case of this performance, they must respond to what the staff member has to say (e.g., anger, verbal abuse, stalking out of the room). Unlike a piece of paper, the employee can talk back!

Perhaps less obvious to the reader, however, is the extent to which the requirement to convey the solution in a on-page memo causes students to place their solution in a more active perspective. Especially among students lacking significant management experience, we are continually shocked at the gap in understanding that is revealed when students are asked to transform formal analysis into an action-oriented memo. Some of the common errors include:

- Incorrectly translating the theoretical solution into a decision;
- Mistaking the nature of the management action that is implied by the theoretically-informed conclusion;
- Writing in an academic style rather than getting to the point;
- Writing from the point of view of the writer rather than the reader, thereby emphasizing the wrong points;
- Failing to consider contextual and psychological factors that will impact on the supervisor's acceptance of the recommended decision;
- Failing to show the supervisor how an otherwise excellent recommendation will be feasible and practical;
- Failing to consider the legal consequences of the memo's wording and the memo as a business document.

These weaknesses are revealed simply by asking for a one page memo instead of a case analysis. Since we also ask students to provide their back-up analysis as an attachment, we are able to see clearly how well students are able to translate their conclusions and recommendations into practical terms. The frequency with which we have found a significant gap between the two has convinced us of the importance of incorporating an implementation focus if we want students to learn to 'manage for action.' Other performances and products serve similar purposes of stimulating students to consider the implementation of their solutions and to experience the consequences of their actions.

The 2nd Imperative: Learn to Think Globally and Apply Knowledge Locally

As the global economy became increasingly integrated during the 1990s, developing economies around the world began to experience an expanding demand for professional managers. In many developing nations, local educational institutions simply did not possess the necessary infrastructure to meet this increasing demand for management education. This resulted in the rapid expansion of *multinational higher education*, as Business Schools from North America, Europe and Australia rushed to meet this demand by offering programs globally. [29]

These multinational education programs have tended to offer their standard curriculum through a variety of delivery modes.

- A few programs have relied entirely upon their own full-time faculty members for delivery on-site in the foreign country, sometimes using the facilities of a local university partner.
- Some programs have used their own full-time faculty members, along with qualified faculty members supplied by local university partners (e.g., Kellogg and Wharton Business Schools have used this approach widely).
- Some schools have used one of the above models in concert with on-line learning.
- Some programs have been delivered 100% on-line using the internet, books and supplementary CD Roms (e.g., Herriott Watt Business School).
- More recently, some institutions have set up their own subsidiary units in foreign countries (e.g., the Graduate School of Business, University of Chicago in Singapore).

Management students attending classes in their home environment have been willing to pay the higher fees charged by overseas institution due to a perception that they are receiving a "world class product." They are buying the brand. The quality guarantee of these programs is symbolized in the foreign (i.e., Western) university's internationally recognized and accredited management curriculum, the use of international (i.e., largely North American) English-language knowledge resources (i.e., textbooks, cases, electronic databases), and the use of *high reputation* faculty members. It is not our purpose here to critique these developments in general, but rather to focus on a single feature that we refer to as *the global-local imperative.*

The global-local imperative for management education concerns the need to develop the capacity of graduates to apply knowledge to the types of management problems they are likely to encounter in their current and future work contexts. We agree with Mintzberg's contention that the knowledge base that skillful managers employ i is a best described as a form of craft knowledge.[30] This is not to say that managerial problem-solving cannot benefit from knowledge grounded in the social sciences. However, in practice, effective managers blend craft knowledge drawn from experience (their own and that of others) with an understanding of their organizational context, their personal values, and formal knowledge.

With this in mind, the global-local imperative encompasses two underlying assumptions:

- First, management education should expose students not only to the business problems included in standard texts and curricula, but also to problem scenarios built around the types of problems they are likely to encounter in their local contexts.
- Second, management education should enable students to learn how to critically appraise knowledge and the conditions that bear upon its application in their local context.

The global-local imperative suggests that the knowledge base that underlies management does not exist as a commodity to be bought and sold across borders

like auto parts or soybeans. Its meaning and utility are only constructed and activated when introduced into a particular socio-cultural context. We contend that management education has an obligation that goes beyond the simple delivery of a reputable North American or European curriculum. A *world class curriculum* should take into account the application of knowledge for the context in which it will be applied.

By voicing these assertions, we do not mean to suggest that business problems drawn from 'foreign' contexts cannot play a useful role in the education of managers. Certainly, they can. However, we argue in this volume that management is a socially constructed activity; as such management learning must take into account the local environment as an important variable.

For example, consider that the use of practices encompassed under performance management. A business case built around a problem concerning performance management would look quite different in New York, Tokyo, Bangkok and Berlin. The cultural differences embedded in these contexts impact not only on the case analysis, but also on the implementation of a solution. The global-local imperative suggests that the business curriculum needs to be localized to varying degrees in different knowledge domains.

Problem-based learning is one approach that offers the possibility of meeting this imperative. PBL accomplishes this by constructing portions of the curriculum around problems that are meaningful in the local business context. Part II of this volume provides sample PBL projects, each of which has been adapted for the Asian context in which it is being used. Several of these projects were already adapted from PBL materials developed in the USA (e.g., see Chapters Nine and Fourteen). Moreover, these and other projects could be similarly adapted for use in the context of other developing nations.

PBL is not, however, the only means by which we may address the global-local imperative. Cases, simulations and many other methods can be employed as well. We contend that the method should be judged by the end results: are students developing the capacity to apply knowledge in their work and in their lives?

Indeed, we see the global-local imperative for management education heading in a new direction. Up to now, Western universities have been able to market their MBA degrees with little or no adaptation to the context of developing countries. While the top ranked schools will no doubt be able to continue on this path, we see both ethical and practical reasons for change in the future. Ethically, universities *should* take those steps that are in the best interests of their students. Practically, multinational educational institutions that fail to localize their curricula will, over time, lose out to those that do.

The 3rd Imperative: Learn to Lead and to Manage

Sixty years ago *management* was defined as the process of planning, leading organizing, directing and control of human, material and fiscal resources with the aim of achieving the organization's goals. Management has been characterized as focusing on identifying and using the most efficient approaches – *the right ways* -- of achieving the organization's goals. Critiques of management as a concept have

focused on the fact that this drive for efficiency can make untenable assumptions about the *ends* towards which the organization is working.

These critiques have contributed to increased interest in the *leadership roles* of education managers. *Leadership* has been characterized as determining the *right ends towards which* the organization will focus its financial and human resources. Given the rapidly changing business environment of the past two decades, it should come as no surprise that leadership has attained a degree of ascendancy over management. Influential management scholars, (e.g., Bennis, Kotter, Peters, Drucker, and Deal) contend that during times of rapid change capacities for leadership come to the fore.[31] Leadership is fundamentally concerned with seeking opportunities, setting direction, and motivating stakeholders to strive towards their accomplishment. Leadership is considered necessary for successful change at the organizational level.

It would also be accurate to observe that the current interest in leadership derives from the belief that there is a *moral crisis* in organizational life.[32] Leadership involves the definition and explication of values that underlie the direction of the organization.

It is, however, highly simplistic to believe that only the capacities to define the vision and motivate people are sufficient for successful goal achievement. We assert that strengthening *management knowledge and skills* is essential if *leadership* is to achieve the vision defined for the organization. Twenty-five years ago James G. March described this necessary balance between artful leadership and competent management as "creating bus schedules with footnotes from Kierkegaard."[33] He observed:

> Elementary competence in organizational life is often under-rated as a factor in managerial effectiveness when we write against a background of concern for the issues of great leadership. . . Much of what distinguishes a good bureaucracy from a bad one is how well it accomplishes the trivia of day-to-day relations with clients.[34]

As we shall elaborate in Chapter Two, Bridges, identified "socialization of future administrators to unrealistic expectations of the role" as a common design flaw in preparation programs.[35] He noted that the propensity of programs to focus on overly lofty conceptions of leadership dimensions of the administrator's role created a gap between socialized expectations and the reality of the job. This led Bridges to call for preparation programs to ground their design in a realistic assessment of the managerial role, one that incorporates both leadership and management competencies.[36]

As we shall delineate in Chapter Two and elaborate in subsequent chapters, problem-based learning addresses this imperative by integrating the development of management and leadership knowledge and skills into the learning process. Students work in project teams under time constraints to solve management problems (think of these as action-oriented cases). During this process of learning in self-managing teams, students gain experience through enacting leadership roles and tasks, including goal-setting, team-building and conflict management. Each PBL case, or what we term a project, also requires students to apply and refine selected management skills. The specific skills (e.g., project management, meeting management, written communication, decision-making) vary project by project

depending upon the nature of the problem scenario and the learning objectives of the instructor.

The 4ᵗʰ Imperative: Learn how values, emotions and ethics underlie leadership

More than 30 years ago, Henry Mintzberg contrasted the folklore and fact of managing organizations.[37] After observing the actual work of managers, he drew the simple but powerful conclusion the work of the manager is as much or more about managing people and their emotions as it is about planning and analysis. This "fact of management life" is even more true at the junior and middle management levels inhabited by recent MBA graduates.

Bridges extended Mintzberg's conclusions in a critique of management education in which he explicitly contrasted the nature of the managerial role with the role of a student encompassed in administrative preparation programs. As we elaborate in Chapter Two, this critique identified a wide gap between the importance of emotions in managerial work and the attention devoted to these issues in management education programs. Simply stated, preparation programs either ignore the emotional side of management entirely or treat it as a "topic" for consumption in a management or organizational behavior course. Moreover, most university programs emphasize affective neutrality and discourage emotional displays; cognition, not emotion, is the currency of the realm. In contrast, management jobs are heavy on emotional labor, that is, managing one's own emotions and the emotions of others.

More recently the concept of emotional intelligence has gained greater currency in management education. Nonetheless, the fact remains that traditional forms of instruction offer little leverage in doing more than helping students *learn about* the topic of emotional intelligence and its role in achieving results through people.

We would draw similar conclusions concerning the critically important role of ethics and values in the work of the manager. Some schools seek to teach values and ethics directly in courses. Problem-based learning offers an alternative approach for engaging students in the consideration of ethical issues.

Many of the problem scenarios that students face in a PBL curriculum have ethical, value-based dimensions. In some instances, the ethical issues arise out of features of the problem scenario itself. In the Stanford program, for example, students learn skills in problem framing through exposure to a variety of messy, complex problems. They learn to distinguish *problems* from *dilemmas* (i.e., problems that derive from possibly irresolvable value conflicts).

Ethical and value-oriented issues may also arise out of the process of students working together to carry out the PBL project. While working as a team, students will face the conflicts that accompany diversity of thinking, background and values. This is often the case when the team is faced with making decisions about "what we should do."

As we elaborate in Chapters Two and Four, PBL creates a context for learning about these dimensions of leading people. The learning process incorporates a structured process of goal-setting, team learning and experience, feedback, and self-reflection. We have designed the PBL environment as projects so that students who lead projects are likely to deal with a range of their own emotions (stress,

disappointment, and the like), as well as the emotions (indifference, anger, aggressiveness, hostility, resistance etc.) of their "subordinates." By experiencing and then reflecting upon value conflicts in their own teams, students begin to clarify the values that will drive their own decision-making, especially under conditions of ambiguity.

This action-oriented approach to learning about the role of emotions, values, and ethics in managerial work grounds these important issues in the common experience of the students. So, for example, students do not view ethics or values as "curriculum topics" but rather as part and parcel of managing oneself and others in the workplace.

The 5th Imperative: Learn to integrate technology into management practice

During the past 15 years there has been a quiet revolution in the role and use of information for managing organizations. At the organizational level, Enterprise Resource Management (ERM) emerged as a new management concept during the 1990s. ERM views an organization and its activities as an integrated whole in which information acts as a form of connective tissue linking the activities of different business units. Advances in information technology during the 1990s moved the concept of ERM from theory to practical implementation.

ERM empowers managers by enabling easier access to information throughout the organization. As such it has become a tool for mitigating the long-standing tendency for departments to function as silos, each holding separate stores of information. ERM offers potential for managing the firm in a cohesive, customer-driven manner.

During the same short period of time, we have witnessed a wide range of software technologies become not only ubiquitous, but also essential to achieving greater efficiencies in the work of managers and staff. This is demonstrated in the rapidly expanding use of "basic software programs" such as word processing, spreadsheet, email, presentation, and internet packages, as well as more specialized software used for project management, web design, business intelligence and decision-making, statistical analysis, graphics, video editing etc. If we compare the extent and breadth of use of IT in the workplace today with just 10 years ago, it would have been difficult to imagine the extent to which managers have come to rely on software to accomplish the work of organizations.

These changes in the use of technology in organizations have carried over to the work tasks of the manager as well. A decade ago, managers tended to delegate tasks accomplished with software to others. Today they are expected to perform many of those tasks (e.g., email communication) themselves. Similarly, today organizations expect managers to understand how to manage technology as a corporate resource.

For example, Mark Lutchen former CIO of PricewaterhouseCoopers contends:

> If someone comes out of school but doesn't know how to apply fundamental business disciplines to things like managing IT spending, or dealing with organizational and cultural changes in IT, then the school has met your needs. . . Most schools don't provide a deep understanding of technology and how to use it.[38]

Thus we assert that preparation programs for managers should aim to develop several related skills in:

- Identifying the information needs of the organization,
- Developing an awareness of IT tools available for information management and decision-making,
- Using analytical tools to explore and obtain insights from data,
- Synthesizing facts into meaningful answers to a wide range of problems that impede organizations from achieving their goals,
- Appreciating the need for and able to contribute to technology management.

To attain these goals in IT usage and technology management requires that they be addressed in the basic management curriculum. While there are different approaches for accomplishing this, we believe in treating the use of technologies as a management skill that is as fundamental as meeting management or time management. We have found that PBL represents an excellent vehicle for this purpose.

In the PBL portion of the curriculum at Mahidol University, we have identified a range of technology competencies that we believe our graduates should possess and *integrated* them into a number of PBL projects. We have highlighted the word *integrate* because the students learn to use relevant software (e.g., spreadsheet, project management) during the process of solving significant business problems that cut across the domains of finance, strategic management, marketing and organizational behavior.

The advantage of this approach is that students learn to use IT as tool for problem-solving rather than as a stand-alone skill. The reason for learning to use the pivot table function of MS Excel as a tool is self-evident when one is faced with a corporate data set (see Chapter Ten). The utility of MS Project becomes similarly evident when students teams are trying to manage a complex project with limited time. Understanding the use of e-commerce and web design software packages, even at a basic level, takes on a different meaning when students are engaged in designing an e-marketing strategy and web-based sales and marketing platform for a firm (see Chapter Twelve).

In Chapter Five, we discuss how we have sought to integrate information technology and technology management skills into a PBL curriculum. The chapters comprising Part II of the book provide specific examples of PBL projects that incorporate IT in various ways.

CONCLUSION

The purpose of this book is to provide an in-depth examination of how problem-based learning can be employed in management education. In this chapter, we have sought to lay the groundwork for the rest of the volume by introducing the concept of problem-based learning and discussing how it can be employed to prepare 'managers for action'.

We noted that the context of education has changed in recent years due especially to the forces of globalization. The new context of management education

encompasses important changes both in the methods of managing organizations and in the goals and methods of education. This new context for management education is more demanding in terms of the types of competencies sought by employers among graduates.

This new context has created a set of imperatives to which, we believe higher education programs must respond in order to remain relevant to the employers of our graduates and to society. These include:

1. Learn to 'manage for action';
2. Learn to think globally and apply knowledge locally;
3. Learn to lead and to manage,
4. Learn how values, emotions and ethics underlie leadership,
5. Learn to integrate technology into management practice.

In this chapter, we briefly foreshadowed how PBL responds to these imperatives. In subsequent chapters we will elaborate on this theme in greater depth, showing how PBL can be employed as an approach to both curriculum design and teaching which fosters the capacity of graduates to 'manage for action.'

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[1] Gragg, C. (1941, October 19). Because wisdom can't be told. *Harvard Alumni Bulletin*, Reprinted by Harvard Business School, HBS Case #451-005, p. 12.

[2] Professor Bridges' experience with PBL comes from his role in designing, managing and teaching a PBL-oriented Master degree program. Bridges was the founding Director of the Prospective Principals Program in the School of Education at Stanford University between 1988 and 2002. Between 1989 and 2000, Professor Hallinger used PBL in a general management program at Vanderbilt University at the Bachelor, Master and Doctoral levels, as well as in Executive Education programs. Since 2000, Hallinger has played a key role implementing PBL in a Master of Management program in his role as Chief Academic Officer at the College of Management, Mahidol University in Bangkok Thailand. Both authors have conducted training institutes and consulted to universities on PBL.

[3] For example, see Colliver, J. (2000). Effectiveness of problem-based learning curricula. Research and theory. *Academic Medicine, 75*(3), 259-266. Gijbels, D., Dochy, F., Van den Bossche, P., & Segers, M. (2005). Effects of problem-based learning: A meta-analysis from the angle of assessment. *Review of Educational Research, 75(*1), 27-61.Smits, P., Verbeek, J., & De Buisonje, C. (2002). Problem-based learning in continuing medical education: A review of controlled evaluation studies. *British Medical Journal, 321*, 153-156.

[4] For example, see Copland, M. (2000). Problem-based learning and prospective principals' problem-framing ability. *Educational Administration Quarterly, 36*(4), 585-607. Habschmidt, B. (1990). *Something old, something new, and the principal's blues*. Unpublished doctoral dissertation, Nashville, TN: Vanderbilt University. Walker, A., Bridges, E., & Chan, B. (1996). Wisdom gained, wisdom given: Instituting PBL in a Chinese culture. *Journal of Educational Administration, 34*(5), 12 – 31. Merchand, J. (1995). Problem-based learning in the business curriculum. An alternative to traditional approaches. In W. Gijselaers, D. Templaar, P. Keizer, E. Bernard, & H. Kasper (Eds.), *Educational innovation in economics and business administration: The case of problem-based learning*. Dordrecht, The Netherlands: Kluwer.

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[7] Bok, *op. cit.* For in-depth discussion see Bridges, E. & Hallinger, P. (1993). Problem-based learning in medical and managerial education. In P. Hallinger, K. Leithwood, & J. Murphy (Eds.), *Cognitive perspectives on educational leadership*. New York: Teachers College Press.

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[9] Mintzberg, *op. cit.*

[10] *Ibid.* p. 10.

[11] Svensson, G., & Wood, G. (Eds.) (2006). Call for papers for special issue: Business Schools or Schools for Scholars? *European Business Review*. www.emeraldinsight.com/info/journals/ebr/bs_cfp.jsp

[12] Heskett, J, (2005, July 4). How can Business Schools be made more relevant? *Harvard Business School Working Knowledge for Business Leaders*, http://hbswk.hbs.edu/item/4886.html

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[23] Bridges, *op. cit.*

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[26] Bransford et al., *op. cit.*

[27] Mintzberg, *op. cit.*

[28] Cooley, G. (n.d.). *Helen's awkward problem.* Case published by the Intercollegiate Case Clearing House, Soldiers Field, Boston, Mass. 02163.

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[30] See Mintzberg *op. cit.* Chapter One for an excellent discussion of the nature of the knowledge base in management education.

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[37] Mintzberg, *op. cit.*

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