Peter Daly
David Gijbels
Editors

Advances in Business Education and Training 2

Real Learning Opportunities at Business School and Beyond

Springer

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Advances in Business Education and Training

Volume 2

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Advances in Business Education & Training is a Book Series to foster advancement in the field of Business Education and Training. It serves as an international forum for scholarly and state-of-the-art research and development into all aspects of Business Education and Training. It will not only publish empirical studies but also stimulate theoretical discussions and address practical implications. Also reviews of important developments in the field are encouraged. The editors welcome contributions in which a line of reasoning is illustrated with experiments, design-based studies, best practices, and theory development. In addition, the editors encourage submission of new ideas for business education and training, papers that are not necessarily empirical in nature, but describe interesting new educational tools, approaches or solutions.
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Preface

Business Education is constantly looking for right practices to develop the future leaders, and business enterprises want to help graduates to become true experts. The book series *Advances in Business Education & Training* wants to contribute to this search and foster advancement in the field of business education and training. It is an international forum for scholarly and state-of-the-art research and development into all aspects of business education and training. In this way, this book series wants to be one of the platforms of the Ed*i*neb-network (www.ed*i*neb.net) which brings together professionals in educational institutions and corporate learning centers, who strive for innovation in developing learning environments.

The present book *Real Learning Opportunities at Business School and Beyond*, the second in this series, is edited by Peter Daly and David Gijbels. We want to thank them and all the authors for presenting a range of interesting and thought-provoking ideas. This book comprises two major sections: research into real learning opportunities in business schools and beyond (Part I) and some best practices in business education (Part II).

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Part I
Real Learning Opportunities in Business Schools and Beyond: An Introduction

Peter Daly and David Gijbels

This book is about learning opportunities in business school and beyond. Traditionally, learning in the business school and learning at the workplace outside the business school are seen as completely separate. In a recent review, Tynjälä (2008) summarised the differences between learning in the school and learning at the workplace based on the work of Resnick (1987) and Hager (1998). Tynjälä describes learning outside the (business) school as unplanned and implicit, often collaborative and highly contextualised, and with unpredictable learning outcomes. On the contrary, school learning is more organised, formal, planned, explicit, focused on individual learning and with predictable outcomes. Tynjälä describes these differences both as weaknesses and as strengths. "After all, formal education is intended to produce general skills that can be applied and transferred to a variety of situations. However, in order to be a true expert in working life one has to develop situation-specific forms of competence, and this is possible only in authentic situations. On the other hand, situation-specific learning by itself may be very limiting. Something learnt in one situation is not easily transferred to another type of situation" (p. 133).

In this book, the focus is not on the differences between the business school and learning at the workplace, but rather on how the authentic learning opportunities at the workplace can find their way to the business school and how learning at work can be improved. The question that is at the foundation of this volume and that business educators continually ask themselves in their endeavour to provide meaningful teaching and learning both within their institutions and in collaboration with outside stakeholders can be formulated as follows: How can the business school educator ensure that the future manager/leader experiences real learning opportunities both within the academy and beyond? Now, we could also ask this question differently – how do we reconcile theory and practice? Raelin (2007), in answer to this, espouses an epistemology of practice as he believes that higher education has overlooked "what practice can contribute to our knowledge base interactively with and distinctly from classroom education" (p. 495). What he is arguing for here is a concurrent and integrated theory and practice approach. The real world of business should be, wherever possible, integrated into business education but the business student and faculty should also interact directly with the business world to experience professional practice first hand. Despite the numerous criticisms of the

business school as the appropriate space to train future managers by both academics and professionals over the last few decades, the business school has still the task of providing management education to a growing number of business students and as a result is faced with finding innovative ways of offering real learning opportunities either via pedagogical and instructional methods or by implicating others. This part contains an eclectic collection of research contributions, 11 in total dealing with such diverse areas as problem-based learning; reflective writing; sensemaking; clicker technology; self theory and motivation; intercultural competence; knowledge exchange and sharing; and moral change and leadership aspirations. This section focuses on research that should enable the reader to better understand how real learning opportunities are created in and with the business school. In the second section we hope to inspire the reader further with a selection of well-described best practices.

Chapter Overview

In Chapter 1, Hanold Watland looks at how an MBA program can enable knowledge and information sharing within an organisation. The study was carried out on 100 police officers completing an MBA program in the United States. This study emphasises the opportunity for real learning when organisation managers and university programme designers collaborate to identify and serve their mutual goals. This chapter is an example of how management education can facilitate organisational goals and the potential impact of management education to organisations.

In Chapter 2, Eringa and Huei-Ling present research on how the intercultural competences of tutors affect problem-based learning and also Chinese students' satisfaction. They conducted a series of in-depth interviews with Chinese students, who study at the International Hospitality Management School of Stenden University in Leeuwarden. The interviews were conducted in Chinese, transcribed and then analysed by a group of Chinese master students. The interviews focused on the expectations and perceptions of Chinese students of problem-based learning and the impact of intercultural competence of tutors on this perception. This chapter shows that students perceive general tutor competences as basic and intercultural competences as advanced.

A problem-based learning environment for large groups is the context of the research presented in Chapter 3 by Gallego and Casanueva. The results of their study on the introduction of problem-based learning to the teaching of tourism management to large groups clearly showed an improvement in the academic performance of the students over two academic years and between those groups who participated in the experiment and those who did not.

In Chapter 4, Tempelaar, Schim van der Loeff and Gijselaers investigate the relationship between, on the one hand, students' self-theories of intelligence and goal orientations, and on the other hand, their expectancy-value based achievement motivations. They conducted their research with 714 first-year university students studying four academic subjects out of an economics and business program. The results point to some interesting and theoretically conflicting outcomes.

Using a sample of 74 part-time MBA students enrolled in three sections of an online class (WebCT course) Hudson and Ramamoorthy examine in Chapter 5 whether two individual difference variables – self-directed learning readiness (SDLR) and individualism–collectivism (I/C) orientations – influenced the learner interactions and performance in the course. The results indicate that both SDLR and I/C have an impact on learning outcomes. This chapter also outlines the implications for online instruction and instructional design.

In Chapter 6, Friesner and Palmer address the issue of connecting business education with business practices by sharing student and employer perspectives on learning derived from a 10-week business placement. The authors share their experiences of supporting work-based learning (WBL) by employing online learning logs. Therefore, the chapter will be useful to all business and management teachers and academics wishing to enhance their support of students at work and to add value to any undergraduate or postgraduate program. The findings of this chapter can be used to structure assessment, may integrate with personal development planning (PDP), can make student handbooks more succinct and assist tutors in providing beneficial feedback to students on their reflective learning in the workplace. As well as demonstrating the potential of learning logs to support business and management learning, the chapter also invites consideration of the role of narrative and critical reflection in developing students' capacity in business.

In Chapter 7, Morin, Thomas, Barrington, Dyer and Boutchkova analyse the impact of clicker technology (student response systems) on learning outcomes of students on an international finance course. The authors attempt to determine how clickers could improve the overall learning environment for students. Their results suggest that clickers might be a promising tool in the classroom to stimulate attention, learning, improve students' interest and participation.

Brown and Proudlove explore in Chapter 8 entrepreneurs' perceptions of their existing business model from two visions of a business model – the innovation-oriented and process-oriented approaches. Entrepreneurship and new enterprise creation and development are increasingly important drivers for future success of the economy, especially in the current climate of economic turbulence. These new enterprise creations and developments are driven by the business model: how their business managers' perceive their market and product/service strategies will create current and future sustainable competitive advantages. Yet this business model is ultimately driven by the business entrepreneurs' own interpretation and understanding, their mindset, of how business value is developed and the impact this has on delivering superior customer-valued products and services. The research presented in this chapter shows a strong link between the business entrepreneurs' mindset business model and their more process-oriented business models.

A fundamental objective of contemporary business education is the preparation of students to effectively deal with the many different challenges they will encounter in their future business careers. Two of the more important challenges that students will face involve leading change and promoting ethical conduct in business. McCuddy discusses the nature and ramifications of these two challenges for future business leaders in Chapter 9. The chapter reports on a quasi-experimental

study within a third-year undergraduate course in “Management and Organizational Behaviour”. The chapter explores whether exposing students to ideas and concepts on the topic of morally leading change affects their conceptions of the kind of leader they hope to become.

Chapter 10 by Rezania and Blyth is about how individual students and groups of students make sense of the experiential exercise they engage in during a classroom training session. It takes as its starting point the wealth of literature on experiential learning, where learning is viewed as a process of experience, reflection, abstraction and action. Using two cases, it draws on sensemaking theory to place the experiential learning process in a wider context in which individuals and groups author stories which help them to connect themselves to what they consider to be desirable ends, think well of themselves in moral terms and succeed in their society.

The problem addressed by Thijssen in Chapter 11 is the alleged gap between theory and practice that cause universities to be detached from the real world and organisation to be detached from formal theory, thereby lacking relevant theory development in the broader fields of business and management studies. The aim of the chapter is to define design principles for knowledge production as a process of collaborative learning and value creation between scholars and practitioners and present empirical evidence. The chapter presents a full set of transferable design principles for learning-by-sharing for knowledge production. Thijssen discusses the implications for universities and organisations and re-evaluates the roles of scholars and practitioners. The chapter concludes that scholars, students and practitioners can benefit from the learning-by-sharing approach for knowledge co-production addressing real-world complex issues.

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Chapter 1
Cops for Cops: An Innovative Use of Communities of Practice in an MBA Program Offered for Police Officers

Kathleen Hanold Watland

1.1 Management Education

The value of management education programs to organizations is widely questioned and debated. There is considerable skepticism whether or not management education programs impact organizations or contribute to organizational goals. Management education programs are frequently viewed as necessary for attaining a desired credential, but having little or no relation to the actual practices of the organization (Sherwood, 2004). At the same time, the role of employee learning and knowledge is increasingly viewed as a competitive advantage to most organizations. It is through the collective knowledge and skills of the employees that organizations are positioned to meet the changing needs of their stakeholders and remain competitive. Employee learning and knowledge are frequently viewed as the most valuable assets of organizations. Many organizations are beginning to take a proprietary view on employee knowledge and are seeking opportunities to increase opportunities for employees to share their knowledge throughout their organizations. The ability of a management education program to address learning and knowledge-sharing needs of organizations and still provide the traditional academic foundation would be a unique and valuable program distinction (Boyatzis, Cowen, & Kolb, 1995).

Traditionally, management education programs, as offered by universities, determine the program design, scope, and content as they are prescribed by the academic discipline. The domain of knowledge considered worthy of academic standards and credentialing is focused on developing individual learners. Many management experts are critical of the gap between the theory taught in the MBA programs and the actual learning needs of practitioners in the workplace (Spender, 2005). Most critics contend that management education does little to serve as a foundation to develop competent leaders or employees, to benefit the organizations in which the employees serve, or to establish a mutually beneficial climate and culture (Rausch,

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2004). Management education programs often have a greater emphasis on "hard domains" or topics associated with a specific body of knowledge such as accounting, finance, marketing, and technology. Management education programs generally place less emphasis on "soft domains" such as communication, motivation, employee development, interactions, and building organizational relationships and may not purposely seek opportunities for practicing these skills (Rausch, 2004). Yet, these latter skills are critical for employees to be effective professionals.

Mintzberg (2004) takes a stand against many current MBA program practices and argues for the necessity of "real world" issues to be discussed in management education programs. These issues should not be addressed through professorial lecture, but rather through learner interaction about their experiences. It is imperative to provide learners with an opportunity to consider and discuss these issues and experiences while also providing a forum for them to reflect on the meaning and implications (Mintzberg, 2004). Interaction and reflection are the key points here. Without the opportunity to interact and reflect on these issues, the learning in management education programs cannot be distinguished from learning from work experiences.

Although management education programs are often criticized, many universities are experiencing record enrollments of employed professionals taking on the additional role of student. These students seek to improve their learning opportunities for both personal and professional growth. As these students participate in their coursework, they strive to enhance their knowledge, skills, and opportunities to contribute back to their organization and to society.

MBA programs or other management education programs have not been noted for making an impact on organizations. A study from the Center for Creative Leadership on executive development found that most useful leadership and communication skills were developed as a result of work done on the job with other employees and peers, not time spent in educational programs (McCauley, Moxley, & Van Velsor, 1998a). Their study found that participation in tasks and opportunity for communication, feedback, and mentoring drove leadership development and employee development and facilitated pockets of change. Boyatzis et al. (1995) observed that while educational programs are not viewed as having a role in organizational change, or leadership and employee development, given the new challenges facing organizations and the competing educational forces trying to serve the employees of these organizations, building a structure in the program curriculum that addresses organizational needs may be a distinguishing factor for an educational program. The ability to serve the individual students and the organizations in which they work could be very valuable. If an educational program was designed to provide the students with tasks related to their organization and the opportunity for communication and feedback from their peers, it may be viewed as having more impact on an organization than more traditional programs (Boyatzis et al., 1995). Tyler (1949) proposed the importance of providing a comprehensive learning experience, focusing on more than just the subject matter, but also including the external environment in which the student must interact. Sarason (1996) builds on this observation by proposing that to serve organizations and society, universities must

be viewed as being part of a larger community, rather than a closed independent system. From this view, it is imperative that a university looks beyond the library walls to determine the scope and pedagogy of an educational program.

1.2 Learning Organizations, Organizational Learning Opportunities, and Communities of Practice

A learning organization, as defined by Peter Senge (1990), is an organization that is fueled by a vision that compels the organizational members to continually expand the capacity to create desired results. Learning, according to Senge, is not simply taking in information, but rather expanding the capacity to create and share. Creating a learning organization that can respond to changes is a challenging task and must include both formal and informal networks according to Senge et al. (1999).

Business journals often seek to describe theories regarding the creation of a "learning organization." Many organizations seek to be deemed a "learning organization." The designation "learning organization" is often used as if it represents a certain type or classification of an organization. This view implies that it is possible to classify certain organizations as "learning organizations" and, at the same time, determine that others are not. In contrast, it seems more realistic and practical to view a learning organization as an organization that provides, encourages, and supports the availability of learning opportunities among employees (Rowden, 2001). In this view, all organizations intentionally providing specific learning opportunities are, to a degree, learning organizations. While Senge's definition is focused on results to an organization, Rowden's definition is focused on creating learning opportunities. Increasing opportunities for employees to learn from each other in an organization is an important first step.

Creating learning structures and opportunities that encourage and support learning capabilities can be a daunting challenge. Knowles (1995) proposed that most of the knowledge or expertise that organizations are seeking to develop already resides in the organization throughout its many levels. Knowles (1995) suggests bringing the employees together and providing a learning event that also serves as a forum for sharing employee knowledge and expertise. Knowles (1995) asserts that organizational learning may be the product of bringing these members, and their expertise, together while providing the forum for sharing information and expertise. Peers are often the richest learning resource. For learning to be optimized, any plan for learning must include a structure for the learners to share their knowledge with each other (Knowles, 1980). Collaboration is essential for learning (Knowles, 1980).

Because many different kinds of learning theories exist, Wenger (1999) proposes a social learning theory should be effectively utilized as a complement rather than replacement for other learning theories. Further, Wenger (1999) asserts that the learning that is most personally transformative is the learning related to involvement and membership in a community of practice.

According to Wenger (1999), communities of practice are informal networks of individuals brought together by a joint expertise, interest, and sense of passion.

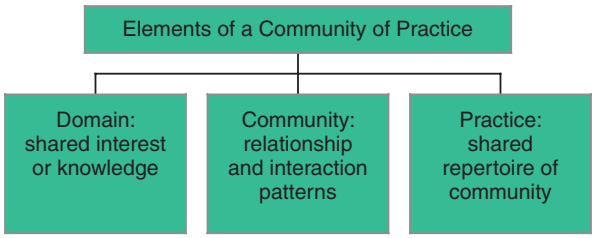

Fig. 1.1 Elements of a community of practice

These groups come together around a specific domain of knowledge and generally share common approaches as well as a passion for working with the knowledge. Communities of practice are considered to be natural stewards of knowledge across an organization (Wenger, 1999).

Figure 1.1 illustrates three elements that characterize a community of practice: domain, community, and practice (Wenger, 2000). Domain is defined as the interest, specific knowledge, or joint endeavor that brings members together. Domain is the core interest of the community. Community is defined as the combination of factors that embody the relationship, including interaction patterns. Practice is defined as the combined knowledge, skills, and experiences of the community members. Practice is their joint capabilities. These capabilities are known as the shared repertoire of the community.

Communities of practice are different from teams or work groups because they are not task or project-oriented. It is a passion for the domain of interest that brings them together rather than a specific task or looming deadline. Their relationships are generally longer in duration than teams and the membership is voluntary and somewhat fluid. Members will continue to interact with each other as long as they see a value to the domain (Wenger, 1996).

Cultivation and sustenance of these elusive communities are extremely difficult tasks (Wenger, 2000). Members of a community of practice openly share knowledge, experiences, and perceptions. This information flows across organizational boundaries and establishes connections between departments or divisions in which the community of practice members work. Researchers have observed communities of practice improving organizational performance and learning through sharing effective practices, driving new strategies, and problem solving.

Communities of practice are likely to consist of influential individuals at every level in an organization. In this context, influential individuals are defined as those able to bring about change on either a micro- or macrolevel. Communities of practice members are generally a mix of individuals with and without formal leadership roles within the organization. To cultivate or encourage communities of practice, Wenger, McDermott, & Snyder (2002) propose establishing multiple opportunities for open dialog, providing both public and private community spaces, inviting participation from different organizational levels.

Communities of practice serve as effective vehicles to share information and knowledge, especially across organizational boundaries. Some research exists about various efforts to encourage communities of practice and their products (Wenger,

1999). There are, however, gaps in the literature regarding the use of management education programs as a vehicle to encourage the emergence of communities of practice.

Context and Methodology of the Case Study

Saint Xavier University offers an MBA program on site at the Education and Training Division of the Chicago Police Department. When the university was invited to provide an MBA program for the Chicago Police Department at its Education and Training Division, the invitation was two-sided. In addition to providing the traditional management education program, the Chicago Police Department management requested the university facilitate and support the organizational learning goals of increased opportunities to share information and knowledge. They wanted to become more of a "learning organization." The Chicago Police Department employs more than 13,000 officers across 25 geographical districts. There was a perception that because the department was so large, expertise was sometimes inaccessible. They contemplated the possibility of officers "reinventing the same wheel" across the department and as a result requested that the management education program "make a difference" to their organization while also serving the needs of individual program students.

Given this request, the university's mandate was to provide a value-added MBA program. The value, in this case, was enhancing the knowledge and information-sharing needs of the Chicago Police Department. Because the university was requested to provide learning opportunities that would increase information sharing and stewarding of knowledge throughout the organization, the university selected program design factors with a goal of cultivating and fostering communities of practice among the program participants.

In this case study, the participants are police officers enrolled in Saint Xavier University's MBA program offered at the Chicago Police Department Education and Training Division. To encourage and foster the emergence of communities of practice among the MBA program participants, the university selected program design factors that would maximize opportunities for program participant interaction and possible collaboration. The program design factors included engaging in extensive class discussions, group assignments, and leveraging class break times by providing meals for program participants to share.

The Chicago Police Department employs more than 13,000 officers and more than 2,000 civilian employees. The Chicago Police Department has 25 geographical districts, five detective areas, and dozens of special units or "work details." More than 100 officers and civilian employees participated in the study through a combination of surveys, interviews, and observations.

The survey was distributed at all of the Chicago Police Department MBA classes during the fall term. There were 22 questions on the survey with the intent to primarily gather data relating to the participants' interactions with other program participants both in and out of the classroom. Two questions investigated factors

that may have encouraged their interactions or collaboration with other program participants. One question asked the participants to approximate the number of "new departmental contacts" with whom the participants had become acquainted through participation in the MBA program. The majority of questions on the survey probed their interaction patterns, interaction frequency, interaction purpose, and topics discussed. These data are critical to identifying the domain and community elements of a community of practice (Wenger, 1999). Two questions specifically asked about any "departmental information, procedures, or processes" they had learned from another program participant or any professional "advice" they had received. One question probed whether or not they had shared this new learning back at their district or unit of assignment with others not in the program. The final question measured the participants' view on whether or not their learnings from the interactions with other program participants had any impact on the work of the department. Interviews of program participants were done on a volunteer basis and the questions for the program participant interviews followed the same open-ended format as those on the survey. The interviews were intended to provide an opportunity to clarify survey responses and gather additional anecdotal data.

As illustrated in Table 1.1, the program participants completing a survey represented many ranks within the department including civilian managers, police officers, detectives, sergeants, lieutenants, commanders, and deputy chiefs. The participants' experience as officers ranged from 3 to 28 years. The data collected from these participants described the interaction patterns of the emerging communities of practice and the impact these communities of practice have on the host organization. Further, the data provided insight into the potential role of a management education program in fostering learning relationships critical to organization success.

The case study was guided by the following questions:

1. What factors encouraged collaboration and potentially the emergence of communities of practice in the MBA program at the Chicago Police Department?
2. What are the mutual interests or common domain of the participants?
3. What are the patterns and focus of participants' interactions?
4. What are the products or impact of their interactions to the Chicago Police Department?

Table 1.1 Rank of study participants

Rank	Frequency	Percent	Cumulative percent
Police Officer	41	40.6	40.6
Detective or Special Unit	17	16.8	57.4
Sergeant	23	22.8	80.2
Lieutenant	7	6.9	87.1
Commander	4	4.0	91.1
Deputy Chief	2	2.0	93.1
Civilian Specialist	6	5.9	99.0
Civilian Manager	1	1.0	100.0
Total	101	100.0	648.5

1.3 Results

The results of the case study are summarized in four sections, each section addressing a separate question. It is important to note that virtually every study participant, through survey responses and/or interviews, affirmed that they collaborated with other program participants and served as resources for each other.

1.3.1 What Factors Encouraged Collaboration and Potentially the Emergence of Communities of Practice in the MBA Program at the Chicago Police Department?

Two themes clarified some of the motivations the study participants had for collaborating with each other and sharing information. The most frequent theme, university encouragement, was mentioned by more than 84% of the study participants. Included within this theme were the opportunities for group assignments, projects, class discussions, and "meal breaks." These program design factors provided the participants with an opportunity to get to know each other on an academic and social level, rather than on a hierarchical rank or departmental basis. Participants cited that many of their classes required final group projects and presentations rather than individual final examinations. Because they came together on academic work rather than the work of the department, their participation (and interaction) was equalized. As students (rather than police officers, lieutenants, or other ranks) worked together on academic assignments, they came to know and utilize each other's strengths, experiences, and areas of expertise. Because of their strong interest in issues relating to law enforcement, their conversations soon turned to topics relating to their work as police officers.

The second most frequent theme mentioned by the participants was the connection they share with each other through police work. More than 69% of the participants mentioned this connection as the reason they collaborated with each other. The university program was offered at the police department's facility and all of the participants were employed by the police department. This atmosphere encouraged collaboration and sharing of information – simply put, cops sharing with cops. Many participants appreciated the opportunity to learn from other officers, about academic work and about their experiences as officers.

In summary, the participants felt encouraged to collaborate with each other and to serve as resources for each other because the university had, through group assignments, discussions, and class break times, provided opportunities for participants from different ranks, units, and districts to share meals and communicate with each other in an informal setting. Additionally, this program utilized instructional methodologies that encouraged opportunities for participants to get to know each other. Police officers do not always feel comfortable sharing their questions or concerns about law enforcement in public situations. The fact that the classes were comprised wholly of individuals related to police work and offered at a location

owned and operated by the police department seemed to facilitate their opportunity to share and learn from each other.

1.3.2 What Are the Mutual Interests or Common Domain of the Participants?

Improvement of the police department and/or the services that the department delivers was a very strong interest. The officers care about delivering good services to the citizens and doing "good police work." More than 78% of the participants mentioned an interest in improving some aspect of the police department or related services. This would include making communities and the citizens safer, preventing crime, solving crime when it does occur, and consequently bringing the guilty to justice, and helping those in need. Another common interest among the participants was the opportunity to improve themselves. As the second most frequent response, more than 67% mentioned their interest in improving their own skills;; many cited reasons that would, ultimately, improve their ability to perform their current or future jobs or careers.

In summary, the participants' primary shared interest was their commitment to law enforcement. They discussed "making a difference" as a motivation factor now, and also as a factor that drew them into the law enforcement profession years ago. Another strong interest was self-improvement, wanting to enhance their professional capabilities and future opportunities.

1.3.3 What Are the Patterns and Focus of Participants' Interactions?

The participants reported they saw each other in class and during class break, but also regularly telephoned, e-mailed, or utilized departmental communications to communicate with each other. More than 97% contacted each other outside of class time and averaged two contacts per week. The most common purpose of the contact was related to giving, receiving, or exchanging information related to a process or task at the District or unit level. More than 64% of the participants cited this reason. Participants indicated this was often related to assistance in the use of technology in the District or finding a quicker or more efficient way to perform a routine task. Examples included instances of learning how to operate Power Point for a class project, and then discovering it would be a useful tool in District beat meetings, and involving additional uses of a financial calculator in working on District budgets.

While a small number of participants raised the issue of rank as an obstacle to communication with other program participants, the majority viewed the program as an opportunity to, albeit momentarily, put rank aside. The coursework and classroom was referred to by some as "the great equalizer" and the "class safe zone." When the participants came together in classroom, governed by the university, they were students first, and police officers, sergeants, lieutenants, etc., second.

1.3.4 What Are the Products and Impact of Their Interactions to the Chicago Police Department?

- *Increased Contact*. The program participants represent 16 of the 25 geographical Districts, all five of the detective divisions, and dozens of the units. The majority of study participants have been employed in police work for 11–15 years. These participants comprise 41% of the study participants. More than 28% of the study participants have 6–10 years of police experience. Virtually every participant acknowledged meeting at least one departmental employee as a result of participating in this educational program and increasing the number of contacts they have who can serve as personal or professional resources for them. A program participant referred to contacts made through the program as a "human tool box" able to answer questions and provide support. More than 21% of the participants responded that they have become better acquainted with approximately 11–15 police department employees through their participation in the university program. More than 19% responded that they had become better acquainted with 21–30 police department employees. Only 6.4% of the study participants responded that they had become better acquainted with five or fewer police department employees. Strikingly, 96% of the participants plan to stay in touch with other program participants after graduation.
- *Learned and Shared New Information*. A majority of the study participants, more than 74%, indicated there were one or more instances that they had learned some new information about the department or a new skill related to their profession from other program participants. Additionally, more than 77% of the participants responded that they shared the new information or skill they had discussed with or learned from another program participant back at their District, their office, or unit of assignment. New information learned and shared was frequently related to identifying and accessing resources in the department or using departmental systems and processes. Examples of these exchanges included Roll Call training ideas, use of PowerPoint presentations at beat meetings, techniques to disperse gang members from gathering on a street corner, and running criminal arrest warrants more quickly.
- *Interactions Positively Impact the Department*. As illustrated in Fig. 1.2, a majority of the participants, more than 69%, believe their interactions with other program participants provided assistance in accomplishing the work and the goals of

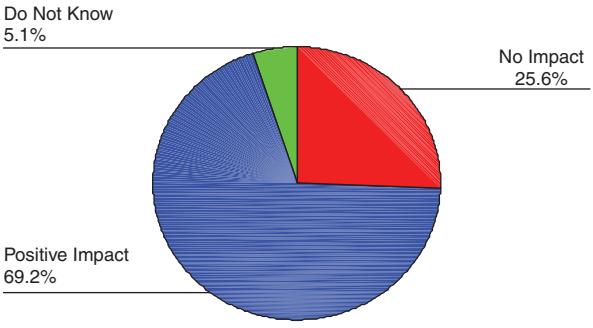

Fig. 1.2 Impact to the department from program participants' interactions

the police department and these interactions had a positive impact on the department. Many participants felt an increased confidence in their peers and had a better sense of the departmental resources. Connecting knowledgeable individuals or groups widely dispersed throughout an organization can be very valuable to the organization.

1.4 Discussion

The most compelling interest of this case study was to explore if management education program design factors could make a difference to an organization by increasing organizational learning opportunities and encouraging the emergence of communities of practice. Participants' interactions had created strong connections and valuable learning relationships across the department. Further, the vast majority of program participants had plans to stay in touch with their new contacts after graduation. This intent demonstrates the creation of sustainable learning relationships across the department. Program participants' experience as officers ranges from 3 to 28 years on the job. Valuable insights, knowledge, and experiences are exchanged between novice officers and veteran officers. As suggested by Wenger et al. (2002) allowing for multiple levels of participation throughout the organization in a private community space assisted the participants to engage in valuable dialog and to broker knowledge across departmental units or boundaries. Boundaries often follow the lines of Districts or units; however, because program participants are dispersed throughout the organization, information was shared across the District and unit lines by program participants. More than 77% reported that they had shared this new information or new skill back in their District or unit. When there were "best practice" processes being used in pockets of the organization, because of the participants' interactions with each other, these pockets were expanded across District or unit lines. These connections can create coordination, standardization, and synergies across organizational boundaries (Wenger et al., 2002).

A majority of the participants, more than 69%, believed their interactions with each other had positively impacted the work of the department as a whole. They had initially become acquainted as students, learned to trust each other through class assignments and social interactions, and eventually began relying on each other as a resource for professional challenges. Examples of improved meetings, better presentations, comprehensive District mission statements, better use of technology were shared in the participants' responses.

1.4.1 Implications for Management

A primary implication of this case study is the potential role that management education programs can play in assisting organizations in building, strengthening, or connecting learning communities within organizations. Although skepticism for the

value of management education to organizations may continue, management representatives from organizations can request university faculty and program designers to be cognizant of organizational needs. As more and more universities are seeking opportunities to provide programs directly to organizations, frequently at the organization's facility, providing a supportive environment for seedling or scattered learning communities to emerge could be an important educational program design consideration. Based on this case study, it seems possible that university program design can assist in cultivating communities of practice for organizations.

Another implication of this case study may be for managers to consider the potential value of communities of practice for their organization. Because of the genuine passion the officers in this case study expressed for their profession and because of the importance of knowledge and experience in this profession, communities of practice became valuable forums for exchanges. Other professions who also share this passion for public or organizational improvement and safety may also benefit from this opportunity. As Wenger et al. (2002) explain, the most viable communities of practice thrive where the goals and the needs of an organization intersect with the passion and aspirations of the participants.

1.4.2 Direction for Future Research

This university was invited to offer an educational program at a police department. The police department management requested special efforts and considerations be made to provide learning opportunities that extended beyond the traditional business acumen to include learning goals of the organization. Universities focus on developing individuals. They routinely recruit, admit, teach, assess, certify, and graduate individual learners. Universities proficiently, and often expertly, design programs to facilitate outcomes as prescribed by discipline and academic standards. The point of this case study is to encourage additional research into the shared learning goals of management education programs and organizations. Individual learning opportunities and organizational learning opportunities are not mutually exclusive, and in fact, these opportunities can be complementary. Perhaps it is at the convergence of these learning needs, goals, and opportunities that management education program design can begin.

Organizations continue to seek opportunities to maximize learning and share information. Universities continue to seek opportunities to serve nontraditional learners. Future research should examine methods for identifying and leveraging the converging goals of traditional management education programs and organizational learning needs.

1.4.3 Limitations of the Case Study

This case study, while contributing to the literature on organizational learning, management education program design, and communities of practice, has two limitations to be considered. First, the sample study population may, or may not, be similar

to the population of the organization as a whole. The opportunity to participate in a university educational program is open to all departmental employees who have more than one year on the job. However, less than 15% of the departmental employees are enrolled in a university program. At present time, there is no way to know if the fact that these employees enrolled in a university program sets them apart from the other departmental employees. A second limitation of this study is that contributing factors that could have led to the emergence of a community of practice may not have been completely isolated. There is no way to know whether, in time, similar sharing of information may have occurred due to their common connection to law enforcement. It is possible that participation in the management education program simply accelerated an inevitable occurrence.

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Chapter 2
Chinese Students' Perceptions of the Intercultural Competence of Their Tutors in PBL

Klaes Eringa and Yu Huei-Ling

2.1 Introduction

Problem-based learning (PBL) has a history of over 30 years in university education. The conditions for and effects of PBL have been studied extensively. Many of these studies include the role of the tutors in PBL (Dolmans, Wolfhagen, Scherpbier, & Vleuten, 2003; Zwaal & Otting, 2004; Poikela, 2006; Van Berkel & Dolmans, 2006).

After the liberation of the education system in China, PBL was also applied in medical education in China. Accordingly, more and more research studies the issues of PBL applied in a Chinese context (Watkins, 2004; De Man, 2005; Song et al., 2005; Yeung, 2006). The main difference between Western and Chinese education is the role of the teacher. In China, the teacher always is the key performer in class. Chinese students are used to acquiring knowledge passively (Huang, 2005). Therefore, the process of introducing more student-centered learning into the education in China brings with it many challenges and obstacles, as shown in several studies (Yang, 2005).

Stenden University (formerly CHN) has applied problem-based learning in its business programs and hospitality, retail, and tourism management for over 20 years. In recent years the learning environment of Stenden has become very international because the students of the main programs come from over 50 different countries, with various backgrounds and with different mother languages. In recent years students from China and other Asian countries have become a substantial group (around 10%) in the Stenden business programs. Introducing PBL to non-Western students has been a challenge for Stenden. In this setting it becomes relevant to define intercultural competence.

A study from Hong Kong indicates that Chinese students are becoming concerned with the competence of teachers while they choose their educations and program. Like Western students, students from China are quickly becoming critical customers who want value for their money.

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2.2 Problem-Based Learning and Chinese Learners

PBL starts from the assumption that students are responsible for their own learning process (Moust, Bouhuijs, & Schmidt, 2001). Lieux and Luoto (1999) point out that PBL prepares students to think critically and analytically and learn to be self-directed under the process. PBL is "an approach to learning through which many students have been enabled to understand their own situations and frameworks so that they are able to perceive how they learn, and how they see themselves as future professionals" (Savin-Baden, 2000). Furthermore, PBL also encourages the development of skills such as communication, report writing, teamwork, problem solving, and self-directed learning (Reynolds, 1997). Problem-based learning assumes that the student is able to study unaided, without being constantly spoon-fed by a teacher. It emphasizes self-directed learning and demands discipline on the part of the students (Moust et al., 2001). PBL can thus be regarded as a constructivist approach to learning with its emphasis on learners' active engagement in their learning and thus in constructing cognitive networks (Van Berkel & Dolmans, 2006).

An important question is whether PBL should be altered when students from different cultures work with it. Research shows that different countries or cultures do affect negatively the performance of education, when the school is not ready for international students. Since most of the teachers are trained for the dominant culture, it is not strange to find misconceptions of cultural diversity prevailing in schools (Yeung, 2006). The rapid development and adjustment to PBL in higher education worldwide has led to several, and ambiguous, interpretations of teaching and learning in PBL (Fyrenius, Bergdahl, & Silen, 2005).

Chinese students are generally regarded as rote learners (Chow, 1995). De Man (2005) observes that Chinese students seem to need explicit leadership from their teacher. He states that Chinese conceptions of learning and teaching are rooted in traditional Chinese culture, notably Confucianism (De Man, 2005). In this view, the teacher is always considered the major knowledge provider with the students as passive recipients (Song et al., 2005). In this view problem-solving and explorative teaching methods employed in the West would not fit with the Confucian-derived preferences for rote learning (Huang, 2005; Chan, 1999; Berrell, Wrathell, & Wright, 2001). Harding's research (1997) found that Chinese students might be more concrete and pragmatic in evaluating ideas than Western students. This difference could lead to different perceptions of PBL and its tutors between Chinese and Western students.

Other research indicates that the Chinese rote learner is more a matter of nurture than nature. An early study by Kember and Gow (1991) argues that many of the reports of the Chinese rote learner are anecdotal. Their quantitative study among 2143 students showed that "Hong Kong students are inherently no less inclined to use a predominantly deep approach than their counterparts elsewhere and might even be marginally more inclined to do so" (p. 125). These results were confirmed by a number of studies, both quantitative (Cooper, 2004) and qualitative (Barron, 2002; Jones, 2005). Jones (2005, p. 339) found that "international students' conceptualization of critical thinking was very similar to their local counterparts." Barron

shows that the Chinese students' approach to learning is more a result of conditioning and learning environment, than an innate learning style:

> [Asian] respondents who had recently started at The University of Queensland favoured the methods that they were used to in previous educational establishments but this attitude appeared to change as students progressed through their studies at The University of Queensland. Those students who were in second or third year of their studies felt more inclined toward the current teaching methods. (Barron, 2002, p. 78)

Clark and Gleve (2006, p. 56), reviewing a large number of studies, quote Spack (1997, p. 765) who states, "Students are remarkably diverse, and thus no one label can accurately capture their heterogeneity." Following Holliday (1999) they argue in favor of "small culture discourses" in the classroom, allowing for this diversity among students.

A number of scholars point to Confucianism in its influence on "Chinese thinking and learning" (Huang, 2005). Of course, Confucius may be credited with many things, including the invention of PBL or action learning when he stated, "I hear, and I forget. I see, and I remember. I do, and I understand."

2.2.1 The Role of the Teacher in Chinese Education

In China, the teacher is regarded as all knowing and is the sole provider of knowledge. Furthermore, Chinese learners have to respect knowledge and wisdom from their teacher (Nield, 2004). Teaching is a vertical relationship in Chinese conception: "once a teacher, always a father." The role of teacher in China is connected with high power distance (Hofstede & Bond, 1988; De Man, 2005). Chinese students are expected to respect their teachers, whether in class or in daily life. Because of this conception, asking questions in class is likely to be regarded as impolite.

Confucianism also delivers a similar thinking of the task of teacher. It is the teacher's task to determine what type of person he is to form (Yang, 2005). Teachers in China have more responsibility and power than teachers in Western society. Students rely heavily on the teacher and seek specific instructions (Nield, 2004). According to the above, the competence of tutor would be a very important factor when Chinese consider the quality of education and choose their study.

Song et al. (2005) states that there is a persistent belief among teachers that students are not capable of learning effectively without the teachers' didactic lectures. Thus, in Chinese education students' performance is determined by and relies on teachers' competences. Interestingly, Huang's research shows that in PBL Chinese students expect to have not only clear regulations, but also knowledge and skills of study from their teacher, as illustrated by one of the respondents, "lecturers should teach more." Furthermore, many of the Chinese interviewees admitted "there was a big psychological obstacle for them when it came to debating a subject with their lecturers" (Huang, 2005).

2.2.2 The Role and Tasks of the PBL Tutor

The role of tutors in PBL is as facilitators who enhance the processes of tackling problems more efficiently. Research indicates that besides the quality of PBL problems and the functioning of a group, tutor competence is an important success factor for PBL groups (Van Berkel & Dolmans, 2006). It stands to reason that the competence of tutors is one of the key issues that need to be sorted out when PBL is deployed in a more traditional educational environment.

Problem-based learning gives new meaning to the teacher's role (Poikela, 2006). The nature of a teacher's work changes from acting as a supplier of information and manager of learning to becoming a facilitator, supporter, and resource of learning (Poikela, 2006). There is a further identification for being a facilitator in a group. Group facilitation is a process in which a person who is acceptable to all members of the group, substantively neutral, and has no decision-making authority intervenes to help a group improve the way it identifies and solves problems and makes decisions, in order to increase the group's effectiveness (Schwarz, 1994).

It is the responsibility of the tutor to stimulate the learning process amongst students and encourage cooperation (Moust et al., 2001). To achieve this main goal, teachers play the role of catalysts in the tutorial group. It is the task of a teacher in PBL to supply students with a learning environment where students can learn activity (Yang, 2005). Dolmans et al. (2003) states that teachers should create a powerful learning environment for students, stimulating constructive, self-directed, contextual, and collaborative learning. To enhance the performance of each group member, tutors must try to gain an insight into students' way of thinking (Moust et al., 2001). Poikela points out that PBL demands fundamental reflection on one's own values and work practices.

A later study by Dolmans identified five factors of tutor performance in a PBL setting: active learning, self-directed learning, contextual learning, collaborative learning, and tutors' interpersonal behavior (Dolmans, Luijk, Wolfhagen, & Scherpbier, 2006). Zabar et al. (2004) defines four teaching competences: establishing relationship with the learner; assessing the learner's needs; demonstrating instructional skills; and funding of knowledge. Zwaal and Otting (2004) conducted research at Stenden regarding the most important competences of a good tutor in PBL. They collected a sample of 384 students from six different programs. The result of the research shows that from a student perspective, the most frequently mentioned answers were (1) sufficient knowledge of the module; (2) steering; (3) timely intervention.

2.2.3 Competences of PBL Tutors

Looking into the definitions and classifications of the competences of a PBL tutor in the studies above shows that these studies do not seem to reflect the competences of a PBL tutor but instead focus on the tasks of a PBL tutor. Most definitions

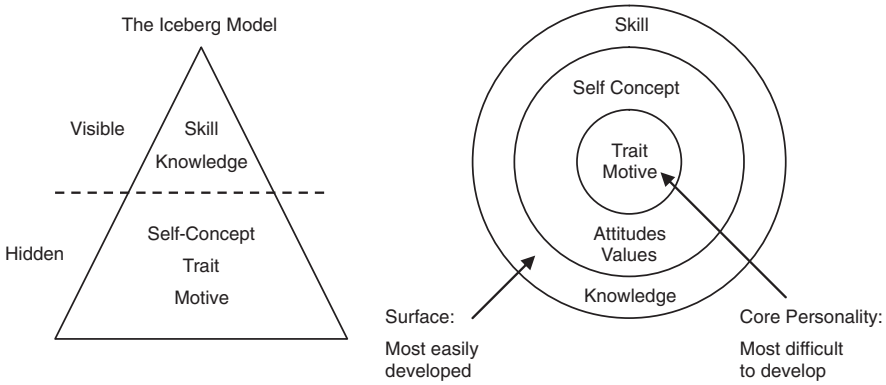

Fig. 2.1 Iceberg model (Spencer & Spencer, 1993)

of competence agree that it is a combination or integration of three elements or dimensions: knowledge, skills, and attitudes, even though not everyone recognizes the latter (Kirschner, Van Vilsteren, Hummel, & Wigman, 1997; Westera, 2001; Zwaal & Eringa, 2000, 2002). Spencer and Spencer (1993, p. 9) define a competence as "an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation." They distinguish between motives, traits, self-concept, knowledge, and skills:

Motives – the things a person consistently thinks about or needs that cause action;
Traits – physical characteristics and consistent responses to situations or information;
Self-concept – a person's attitudes, values, or self-image;
Knowledge – information on a specific area;
Skill – the ability to perform a certain physical or mental task.

Figure 2.1 illustrates the dimensions with the well-known iceberg model. The first three are hidden dimensions that belong to the core personality and are difficult to develop; the latter two are surface dimensions that can easily be made visible and are relatively easy to develop.

Spencer and Spencer distinguish between effective and superior performance, or *threshold competencies*, such as basic knowledge and skills vs. *differentiating competencies*.

2.2.4 Intercultural Competence and Intercultural Competences of PBL Tutors

In her meta-study on intercultural competence among intercultural scholars, Deardorff (2006) defines the concept as "the ability to communicate effectively

and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes." Incidentally, only one element received 100% agreement from the experts, "the understanding of others' world views" (Deardorff, 2006). Olson and Kroeger (2001) state, "a globally competent person has enough substantive knowledge, perceptual understanding, and intercultural communication skills to effectively interact in our globally independent world." Olson and Kroeger distinguish three dimensions within global intercultural competence; based on each are given the definitions by Wilson (1996). Substantive knowledge includes knowledge of cultures, languages, world issues, global dynamics, and human choices (Wilson, 1996 in Olson & Kroeger, 2001). Wilson identifies perceptual understanding to contain open-mindedness, resistance to stereotyping, complexity of thinking, and perspective consciousness. Intercultural communication encompasses adaptability, empathy, cross-cultural awareness, intercultural relations, and cultural mediation (Olson & Kroeger, 2001).

Considering the role of tutor in PBL, the tutor should be a facilitator, supporter, and resource of learning (Poikela, 2006). In a diverse cultural learning environment, the tutor is responsible to stimulate students to contribute and collaborate effectively in a small group (Van Berkel & Dolmans 2006). Once more, this shows that intercultural competence is definitely important to a PBL tutor in an intercultural environment. The successful teacher needs to try to see learning through the eyes of their students and to make "the learner's experience of the object of learning an object of their own focal awareness" (Watkins, 2004). A factor that may obscure the study of intercultural competence is that it is not always clear whether we observe professional competence, communicative competence, or intercultural competence, or a combination of all three (Eringa, 2008).

2.3 Problem Statement and Conceptual Framework

Based on the literature study we formulated the following problem statement:

> What are Chinese students' perceptions of general and intercultural competences of a PBL tutor, and what are possible gaps between Chinese students' possible expectations and their perceptions of PBL tutors?

In order to answer this problem statement a conceptual framework was developed for this study that includes six major dimensions: (1) student background (past experience, needs, and word of mouth); (2) communication with the agent of CHN in China; (3) Chinese students' expectations of a PBL tutor; (4) Chinese students' perceptions of a PBL tutor; (5) general competences of a PBL tutor; and (6) intercultural competences of PBL tutor. The model in Fig. 2.2 illustrates this framework.

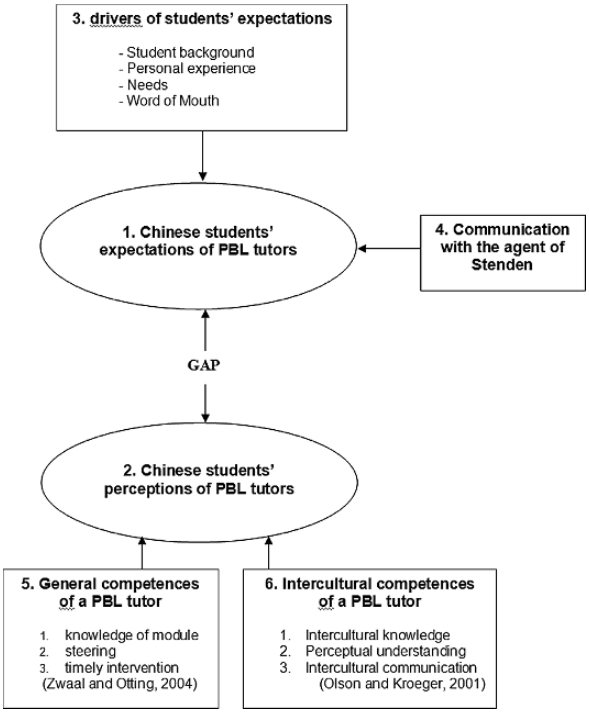

Fig. 2.2 Conceptual model of the study

2.4 Method

The study was conducted among Chinese students at Stenden. In-depth interviews were used as the means to understand how the Chinese students view and expect intercultural competence of PBL tutors. All interviewees had at least one semester of experience with PBL. All Chinese students had an IELTS score of at least 6.0 points. For this reason, the English level of Chinese student is considered adequate to express themselves; nevertheless, the interviews were conducted in Chinese, to allow the interviewees to express themselves as well as possible. As the concepts that were discussed during the interviews were quite abstract, at the start of the interview the interviewer presented a brief handout to explain the purpose and the main concepts of the research. At the beginning of each interview, the interviewer introduced the main purpose of the research briefly and clearly and asked if there is any concern from interviewees. The interviews were half-structured with open questions, to survey students' deep thoughts and feelings about the intercultural competences of PBL tutors. Further, the in-depth interviews were individual and lasted approximately 45 minutes to 1 hour each. After an initial pilot to test the interview style, a total of 10 CHN students were interviewed.

In order to see if there was a difference of Chinese students' perceptions regarding the duration of the students' experience with PBL, three groups of students were

selected: two interviewees only had half a year PBL experience; five interviewees had around 1–2 years experience of PBL; and three Chinese students had already experienced PBL for 3 years. Most interviewees were students of the International Hospitality Management program at Stenden.

After the interviews, the recorded files were stored in the laptop and burned on a disk in order to preserve the original data. The transcripts, which are in Chinese, were stored into the program, NVivo 7.0. This program was designed to help classify and analyze the data. One interview was translated into English and analyzed together with the non-Chinese first author of the chapter. The dilemma faced by the researchers was a trade-off between preservation of the rich data from the in-depth interviews in the original language on the one hand and questions of transparency and reliability on the other (Richards, 2005). The researchers decided to involve and train two more Chinese researchers in order to achieve inter-rater subjectivity.

In order to prevent prejudgments and stereotypes by the researcher, free nodes, which are coded and designed from original transcriptions, were set up (Dean & Sharp, 2006). Some of these free nodes were coded repeatedly. Then, according to the literature review of this research, those free nodes were classified into tree nodes. With this procedure of NVivo 7.0 it is very easy to see the frequency of each node and look into the real content of the coding.

Each Chinese researcher did the coding of tree nodes separately and individually. Later the coders discussed differences in a consensus meeting and accumulated their analyses into one result. For example, during the data analysis with NVivo 7.0, the node "speaking Dutch" was created from the interviewee's experience that a PBL tutor spoke Dutch in the PBL group. One researcher put the node in the category of "intercultural knowledge," but the other two researchers considered that this node should belong to the competence of "perceptual understanding." The differences of the data analysis were discussed until consensus was reached. In this case, every PBL tutor should be able to speak English or at least be competent to use English to explain difficult terms of PBL, so "speaking Dutch" in an international group was considered to belong to "perceptual understanding."

2.5 Results

2.5.1 Student Background and Personality

Every interviewee completed his or her senior high school in China. Five interviewees experienced higher education in China, but only three of them finished higher education in China. Among the interviewees, only one interviewee had work experience, in a care hotel in China. Three interviewees had experience of a pre-course in the Netherlands where she studied for the IELTS exam. Three students were from the capital city of China, Beijing. All the other interviewees were from the big cities of China, such as Chongqing and Shanghai.

The interviewees themselves described the kind of personality they have. There are 13 free nodes made for the part of personality. The characteristics that they mostly used are "shy and quiet"; this node has five sources and six references. Half of the interviewees consider themselves quieter if they compare themselves with other students. Some interviewees believe the reason why they are quieter than Western students is Chinese culture. Student J said, "The traditional concept of Asian culture is more implicit." Two interviewees said they enjoy learning in an intercultural environment and also mentioned they are more open-minded and outspoken. In addition, further interviews show that these two students are highly satisfied with their performance in PBL.

One interviewee, Student A, said, "Education in China means that the teacher stands in front of the class and teaches you knowledge. There are around 40 to 50 students in one class. Unless the teacher asks you a question, you should not talk. Normally the teacher is the major performer in class. The teacher is responsible for telling all kinds of knowledge and there is no interaction between teacher and student." In addition, another interviewee said "In China we experience hard education and knowledge, only depending on what the teacher teaches. Most students rarely study by themselves but are used to absorb the knowledge from teachers. In the third year of high school we had endless tests and formal mock tests once a week." All interviewees consider there is an obvious difference between the education in China and in CHN. In addition, one interviewee pointed out that it could be very impolite if you ask a question in class without the teacher's permission. "That is very different from the class in PBL. In China, you need to listen to teacher's words quietly; otherwise it could mean you don't respect teachers."

2.5.2 General Competences of PBL Tutors

After the analysis process of the 10 interviews, using NVivo 7.0, more than 80 references were coded in this dimension. Following Spencer and Spencer (1993), general competences of PBL tutors were divided into two categories: core personality competences and surface or behavioral competences. The elements mentioned for the core personality category were *helpful*, *charismatic*, *responsible*, *create a nice discussion atmosphere*, and *encourage and challenge students* (see Table 2.1). The latter four are closely related to the tutor's attitude and value system, and thus belong to the self-concept dimension. Spencer and Spencer state that these elements lie somewhere in between core personality and surface competences.

Interestingly, the node *responsible* was coded based on Chinese students' reports of negative experiences with some of their PBL tutors. Student D said, "One of my PBL tutors was always late to the sessions. We always had to wait for her. Besides, every time when we were stuck in some points, she just opened her book 'tutor instruction' and immediately gave the answers of those questions. She did not try tutoring us. I felt bad when she did this, so I think she is not a responsible tutor." Student F said, "Some tutors seemed sitting there and killing time. One of my PBL

Table 2.1 Core personality competences of PBL tutors

	Number of interviewees	Number of references
Charismatic	2	2
Helpful	2	3
Responsible	2	2
Create a nice discussion atmosphere	3	4
Encourage and challenge students	6	7

tutors, Tutor D said *these unsolved questions, we would solve in the next session*. But the next session, nobody mentioned these questions and she also pretended nothing happened. Few questions were still left in the end of the module, so I feel she is not responsible."

Six interviewees mentioned that a competent tutor should *encourage and challenge students*. One interviewee, Student G, said, "In my opinion, a competent PBL tutor should motivate and encourage the students to improve and perform better and better. It is not appropriate that a tutor simply grades students by their performance. Students need the encouragements and feedback from their tutor." In addition, Student B said "Teacher A, he is a very good tutor. Everyone could be lazy to improve, but he can recognize the level of achievement which a student can reach and *challenge* the students to reach the higher level."

The surface or behavioral competences of PBL tutors consist of the elements given in Table 2.2.

Table 2.2 shows the behaviors of PBL tutors – in other words, what tutors did in PBL and what Chinese students perceived from the PBL tutors in the PBL sessions.

The competence of PBL tutors that was mentioned most frequently is *guide the process*. This node is coded in 15 references and by all interviewees. Student H said, "Sometimes our discussion is stuck in a blurry situation. For instance, last time when we were in the module of strategy and discussed about the shareholders, our minds were so limited in certain arenas and we only could mention three kinds of shareholders in this society. Then our tutor, Tutor A, gave us an example; he said families of an employee also could be a kind of shareholder. After his example,

Table 2.2 Surface or behavioral competences of PBL tutors

	Number of interviewees	Number of references
Be well prepared	2	2
Explain PBL system well	3	3
Give examples of work experience	3	4
Give personal feedback after every class	3	4
Guide the process	10	15
Provide a clear vision and overview of the module	2	6
Provide clear grading instruction	4	5
Provide information about the module	5	5
Provide timely intervention	7	7
Show knowledge of subjects or disciplines in the module	5	10

we had realized and could continue our discussion. He did not give us the answers directly, but just gave us an example on point." Student E added, "A competent PBL should give free to the discussion between students, but monitor the direction all the time."

There are also a few negative examples of this competence from interviewees' past PBL experiences. Student F said, "Our discussion sometimes can go in a wrong direction. A PBL tutor should track the direction of our discussion and give a clear direction. However, some tutors seemed not to care and know if we went into the right or wrong direction. Everyone just tried to kill time. It frustrated me." In addition, Student D said, "No matter the student expressed the knowledge correctly or not and I still felt doubtful of our discussion, the tutor did not say anything and give any directions. Everything was so blurred and vague, although the tutor gave everyone high points. I felt unsatisfied during the module because I felt that I did not learn the knowledge." Obviously, this function was not coded in positive experiences. It seems that this function determines if a tutor is competent or not.

Another category that students mentioned frequently is *show knowledge*. Student B said, "The first competent tutor I met is Tutor B. He was also my personal coach and influenced me very much in my first year here. He was the tutor of the module of marketing so he is very knowledgeable in the field of marketing. It was not easy if you wanted to pass his module and you really needed to prepare well, because he even could point the sources of the articles you mentioned." The knowledge of a module is an important competence, which a competent PBL tutor should possess. Furthermore, some interviewees expressed their negative experiences because the PBL tutors lacked sufficient knowledge of the module. Student A comments, "This created the ambiguous discussion in our group. I think this was a big disadvantage of PBL."

Provide timely intervention was coded in seven references in seven sources. One interviewee said, "When we delivered wrong knowledge, our PBL intervened between our discussions immediately and asked us if we are sure about the knowledge. Then we know we should prepare more. I think this is what a competent PBL tutor should do" (Student A). Another interviewee said, "When we took too long a time to discuss one issue our tutor intervened between us and pointed our disadvantages. Then he gave us a clear direction of our discussion. I think he is a competent tutor" (Student C).

2.5.3 Intercultural Competence of PBL Tutors

Intercultural competence of PBL tutors is the focus of the research and interviews. Following Olson and Kroeger (2001) we classified three dimensions of intercultural competence from the data analysis. These dimensions constitute the free nodes with different attributes. They are *intercultural knowledge*, *perceptual understanding*, and *intercultural communication*. Among these three dimensions, *intercultural communication* was the most frequently mentioned by all the interviewees in 28

Table 2.3 Dimensions of intercultural competence of PBL tutors

	Number of interviewees	Number of references
Intercultural knowledge	7	13
Perceptual understanding	7	16
Intercultural communication	10	28
Negative experience with intercultural aspects during PBL	6	15

references. Second, interviewees also considered *intercultural knowledge* an important competence of PBL tutors; it was mentioned by 9 interviewees and with 15 references.

Although the elements of *perceptual understanding* were only coded in 7 interviews, the number of references is 16, even more than *intercultural knowledge*. Six of 10 interviewees with 15 references expressed negative experiences with intercultural aspects in their PBL, which shows insufficient intercultural competence of PBL tutors. These negative experiences have been put under the three dimensions of intercultural competence.

The results of the analysis of intercultural competence of PBL tutors is shown in Table 2.3.

2.5.3.1 Intercultural Knowledge

This competence includes knowledge of cultures, languages, world issues, global dynamics, and human choices (Olson and Kroeger, 2001). Because the research was asking Chinese students about the intercultural competence of their PBL tutors, the interviewees mostly expressed "the behaviors of PBL tutor." For this reason, Chinese students only gave critical incidents about their PBL tutors and had difficulty in expressing details in this respect. Table 2.4 shows only few sources and references in this aspect of intercultural competence. This limitation of the research will be discussed in the following paragraph.

Table 2.4 Intercultural knowledge of PBL tutors

	Number of interviewees	Number of references
Competent English oral ability	3	3
Global issue and cultural difference	4	5
Have some experience in intercultural environment	4	5

2.5.3.2 Competent English Ability

Students considered *Competent English ability* a basic competence of a PBL tutor in the international environment. Student J said "a competent PBL tutor at least should obtain competent English ability, because all the international students speak English with particular accents. If PBL tutors even are not able to express their opin-

ion well or understand student's points, the defect may cause some misunderstandings between students and tutors." In addition, interviewees also expected to practice their oral English skill in the first year of PBL, so they expected that PBL tutors could give them more opportunities to practice and improve themselves. Student B mentioned, "We had some negative experiences with a PBL tutor, who always gave us low points without giving any feedback. Therefore, after few sessions, we tried to communicate with her, but she could not explain well why she gave us low points. Later we have realized that her English was also not good, so basically we could not understand each other all the time. For the first year students it was really a depressing experience."

2.5.3.3 Global Issue and Cultural Difference

This dimension includes knowledge of cultures, languages, world issues, global dynamics, and human choices (Olson and Kroeger, 2001). Student B said, "I think that a competent PBL tutor should obtain the knowledge of different cultures and expand the view of point to the world, but not be restricted in Dutch condition. In addition, it does not have to be Chinese culture, but Asian or African culture." Student A also pointed "if a PBL tutor has already a general idea of different culture, then he will not be too surprised and shocked when he faces opinions with different cultures."

2.5.3.4 Having Some International Working or Living Experiences

Student E said "It would be much better if PBL tutors have some international working or living experience, whether in Holland or in other countries, because the experiences may influence tutor's vision towards different cultures." Four interviewees pointed that they felt that the international experiences do affect tutor's performance in intercultural circumstance. Student D said, "In my opinion, Tutor F is a very competent PBL tutor. Firstly, she is also a foreigner here so that she could be aware of the difference between cultures. She has worked with people from different countries for many years and is interested to study the knowledge which is related to intercultural issues in order to understand students' backgrounds."

2.5.4 Perceptual Understanding

According to Olson and Kroeger (2001), perceptual understanding refers to *open-mindedness*, *resistance to stereotyping*, *complexity of thinking*, and *perspective consciousness*. From the interviewee's point of view, perceptual understanding was regarded as a crucial core personality competence of PBL tutors, which drives the performance of PBL tutors. Furthermore, the interviews gave some clear examples of how the interviewees perceived this competence from their PBL tutors. In addition, most the interviewees mentioned exactly the same terms in the interviews, which were *empathy* and *respect different cultures*. For this reason the researchers

Table 2.5 Perceptual understanding of PBL tutors

	Number of interviewees	Number of references
Empathy	6	8
Resistance to stereotyping	2	2
Respect different cultures	5	13
Speaking Dutch	3	5

decided to include this node in perceptual understanding rather than in intercultural communication (Table 2.5).

2.5.4.1 Empathy

Student H described this competence very succinctly when he said, "If they [tutors] encounter dissimilar ideas which are totally from themselves, they won't try to avoid or resist the ideas. These tutors had expressed their own intercultural experiences, although at the beginning they did feel shocked, once they tried to put themselves in students' situations. They started to realize the students and consider the issue from other cultural angles. Therefore, step-by-step the processes helped them to understand what international students think about this and why they behaved in the certain ways. I think from the example of these two PBL tutors, empathy is a very important attitude or ability, which could shorten the power distance between students and tutors as well. To students, these two PBL tutors are always very friendly." Most of the interviewees consider this an advanced or superior competence of a PBL tutor, which is based on cultural fairness and respect. As Student F said, "Absolutely Chinese culture is so much different from Dutch culture, and I would consider *respect different cultures* is basic. Furthermore, if a PBL tutor can try to empathize with international students' situations this may help students realize the difference between cultures in addition to narrowing the gap between different cultures."

2.5.4.2 Resistance of Stereotyping/Open-Minded

After the consensus meeting between the three researchers, it was decided that *resistance to stereotyping* and *open-minded* should belong to the same sub-category. This refers to the situation that a PBL tutor holds prejudices against certain cultures, which may be shown in tutors' preference for certain cultures. The interviewees thought this aspect could affect the atmosphere and synergy of group work. Student D said, "His open-mindedness enhanced the atmosphere of our group discussion. Every one was willing to share and gain higher points."

2.5.4.3 Speaking Dutch

This aspect was coded from the negative experiences of three interviewees. Some Dutch tutors spoke Dutch in the class or allowed students to speak Dutch in the

class. The interviewees expressed their negative experiences with this aspect and then how it was solved. Student I said, "In the group I was the only one international student, and the rest of students were Dutch. Therefore, sometimes the tutor just spoke Dutch to the students. At the beginning, I would ask for the translation from the classmate who sat next to me. They were very nice to help me, but after few times I really felt irritated about the situation. Actually all of them can speak and understand English." Student F said, "Some students were likely to speak Dutch in class, even though there were a few international students. I hope that PBL tutors can just stop this immediately." In the analysis, there were two different opinions about the category of intercultural competence in which this aspect belonged. In the consensus meeting, it was decided that speaking Dutch in PBL shows that a tutor has a lack of respect in perceptual understanding of intercultural competence, because the tutor is not aware that the use of different languages could cause isolation between cultures.

2.5.5 Intercultural Communication

Olson and Kroeger (2001) define this dimension as "adaptability, empathy, cross-cultural awareness, intercultural relations, and cultural mediation." After the analysis and discussion, six sub-categories or nodes were identified in this dimension: *show fairness to different cultures*; *influence the intercultural awareness of Dutch students*; *be neutral in cultural issues*; *handle cultural differences and conflicts*; *create a situation of intercultural harmony*; *and support intercultural activities*. These nodes are related to the behaviors or specific tasks of a PBL tutor. Of these nodes *show fairness to different cultures* and the way a PBL tutor *handles cultural differences* are the major concerns in intercultural communication, which includes positive and negative perceptions from the interviewees (Table 2.6).

Table 2.6 Intercultural communication

	Number of interviewees	Number of references
Show fairness to different cultures	6	12
Influence the intercultural awareness of (Dutch) students	3	3
Be neutral in cultural issue	2	2
Handle cultural differences and conflicts	6	13
Create a situation of intercultural harmony	3	3
Support intercultural activities	1	1

2.5.5.1 Show Fairness to Different Cultures

Student G said, "It is very important that a PBL tutor treats students fairly, no matter from which cultures or backgrounds. Most of the PBL tutors are fair to students. I know a PBL tutor, who comes from Beijing; he treated every student fairly. He

would not give higher points to Asian students and every student in the class agreed with the points he gave. Wherever you come from, he always treats us the same and scores you based on your performance." This is considered a very basic requirement of a competent PBL tutor. As another interviewee said, "A competent intercultural PBL tutor at least should not wear 'the glasses with colors' and should treat every culture fairly" (Student B). Wearing the glasses with colors means that looking at person with a specific preference or prejudice. However, Student B also expressed some negative experiences. She said, "One of the PBL tutors always gave high points to Dutch student. There were only two Dutch students in our group, the rest were international students. The Dutch students did not prepare well obviously, but they just added some meaningless points after the points expressed by the other students. In this way, they still got high points. The rest of the students prepared and contributed to the discussions, but hardly got high points. Therefore, we did feel that the tutor was not fair to every culture and even had some prejudices towards some Asian cultures. I would say the atmosphere in the group was bad, especially between Dutch and international students."

2.5.5.2 Handle Cultural Differences and Conflicts

Concerning this competence, PBL tutors played the role as cultural mediators. This critical situation tested the ability of intercultural communication of PBL tutors. Student C said, "I had a serious argument about our group reports with my partners, one is Dutch and another one is Russian. The three of us had different ways and opinions of doing our reports. At the end of the argument, we quit to communicate and just decided to finish the report alone. Our PBL tutor noticed the problems of our cooperation, and made an appointment with us. He asked us to speak up our real opinions and analyze the difference of our opinions. We realized it was a misunderstanding between different cultures and language, and then we cooperated with our assignment successfully." Most of the experiences with this aspect evoke positive comments from the interviewees who regard this competence as an advanced or superior competence.

2.6 Discussion

The interviews show that Chinese students are used to following regulations and knowledge from their teachers without much criticism. They emphasize that a teacher is responsible, because this is related to the quality and quantity of the knowledge the students will obtain. These findings are consistent with literature, e.g., high power distance between teachers and students, teachers as main knowledge providers, and the more traditional view of Chinese students as more passive learners, rare interactions between teachers and students, and students who should be quiet during classes. However, the students show development toward more active learning styles, confirming more recent empirical studies (Kember & Gow, 1991; Holliday, 1999; Barron, 2002; Cooper, 2004; Jones, 2005; Clark & Gleve, 2006).

Two of the interviewees experienced a Western type of education in China, which is similar to PBL (Student D and Student I). Compared with the other interviewees, they needed less time to adjust to PBL and the new study environment. Moreover, they were able to express their opinions about PBL and PBL tutors in intercultural aspects more concisely and needed fewer follow-up questions during the interviews.

Interestingly, in the part of "communication with service providers," the research found that the Chinese education agent plays an extremely crucial role as a major information provider and a main channel of transmitting service promises. Nine out of 10 interviewees went to the education agent for consultancy. However, because they did not receive sufficient information about PBL from the agent, most of them are not satisfied with the service of the agent of Stenden. Besides, the ranking of the school and the comments from the forum of *Gogodutch* are considered reliable information in assessing the quality of the education.

The Chinese students' perception of the general competences of PBL tutors: From the surface or behavioral competences of a PBL tutor, *guiding the process*, *show knowledge of subjects or disciplines in the module*, and *provide timely intervention* are mentioned the most as important competences of PBL tutors. This confirms the views of Zwaal and Otting (2004). Chinese students have experienced a period of PBL and started to realize that PBL tutors are not mere knowledge providers, but are facilitators of the group working process. The surface competences yield 61 references, three times more than the core personality competences. In that category students mention elements such as *charismatic*, *helpful*, and *responsible*. They perceive *encourage and challenge students* as an advanced competence of PBL tutors.

Comparing the results of the interviews with the literature shows two differences in perception of important competences of PBL tutors between Chinese and other non-Chinese students. Chinese students expect that tutors would see their improvement and encourage or challenge them time and again. Half of the interviewees appreciate the tutor sharing their working experiences, examples, and other relevant knowledge.

Chinese education is completely teacher-centered and Chinese students are used to learning from their teachers (Song et al., 2005). Furthermore, Hofstede and Bond (1988) point out that China has a culture with higher power distance between levels, such as parents and children, teachers and students, employers and employees. For these reasons, Chinese students hold higher expectations of their teachers. In other words, in China teachers take more responsibility for the outcome of students' performance. The result of the interviews shows that most Chinese students did experience this model of education in China. They expected that teacher is a "main knowledge provider" of their study and they are willing to follow instructions from their teachers.

The distinction that Spencer and Spencer make between effective and superior performance, or *threshold competencies* such as basic knowledge and skills vs. *differentiating competencies*, is not altogether confirmed by the present study. Chinese students consider some surface competences such as *subject knowledge* or *being*

well prepared to be advanced competences, and core personality competences such as *helpful* or *responsible* are perceived as basic.

The Chinese students' perception of the intercultural competences of PBL tutors: In this study, we defined intercultural competence as "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (Deardorff, 2006). Olson and Kroeger (2001) state, "A globally competent person has enough substantive knowledge, perceptual understanding, and intercultural communication skills to effectively interact in our globally independent world." Following Olson and Kroeger, we classified intercultural competences into three dimensions, which include core personality and external aspects of intercultural competence. The three dimensions are *intercultural knowledge*, *perceptual understanding*, and *intercultural communication*. From the knowledge perspective, English language ability is a basic competence of an international PBL tutor. *Basic knowledge and awareness of cultural differences* are also considered basic competences, just like *showing respect of different cultures*.

Every interviewee mentioned that for a competent PBL tutor proper intercultural communication skills are crucial. They regard *being fair* as a basic competence. *Being a mediator between different cultures* is seen as a superior competence. Chinese students are concerned that PBL tutors treat them fairly and tutors are competent to handle conflicts between different cultures. These needs from Chinese students are consistent with research by Schneider and Bowen (1995) who state that justice and security and fairness are the basic needs that people feel.

Interestingly, the interviewees considered that an interculturally competent PBL tutor is more capable to stimulate intercultural harmony in a PBL group, but they consider this as an advanced intercultural competence.

In conclusion, not all dimensions from Olson and Kroeger (2001) were confirmed. A reason may be that Olson and Kroeger used a sample of teachers and administrative staff from a university in contrast to the student sample from the present study. The abstract concepts that make up intercultural competence might be more readily identifiable by the former group. Another explanation might be that both studies are too dissimilar. A major weakness in Olson and Kroeger (2001) is that their sample is too small to allow for sophisticated statistical analysis. It means that the outcomes of their research can mainly be used as inspiration for more research and that the qualitative approach as chosen in the present study cannot really validate or disprove their findings.

A last remark concerns the changes that take place in traditions in China, especially in Shanghai and other international big cities. Two Chinese interviewees experienced dissimilar education which is closer to problem-based learning. They expressed that their experiences help them to open their mind and motivate them to learning proactively. Ooi (2007) mentions that living culture is changing over time and education is right at the heart of culture developments. Maybe this, more than anything else, will have an impact on how Chinese students perceive new ways of learning and the roles of their tutors.

2.7 Limitations of the Research

The research focuses on the students' point of view, more specifically student expectations and perceptions. In this case, the interviewees report on the outcome of service, which can be seen in the behavior of PBL tutors. In other words, customers might hardly see core personality aspects of intercultural competence. Thus, the limitation of this research includes five points.

Given the fact that the research only considers customers' opinions, some core personality competences of PBL tutors might not be seen and depicted clearly.

Past intercultural experience of interviewees influences their opinions of their PBL tutors. Therefore, some interviewees with special experience might not resemble others. Besides, duration of staying in Holland affects the interviewees' intercultural awareness, satisfactions, and perceptions of PBL tutor.

Although only three master students were analyzed to date with NVivo 7.0, it is still hard to fully avoid subjective opinions which relate to our past experience and backgrounds.

In this research, Chinese students' perceptions of PBL tutors and PBL are only derived from in-depth interviews with Chinese students. It could possibly miss some important factors, which also influenced interviewees' perception, such as students' poor performance in PBL group and poor level of English.

2.7.1 Recommendations for Further Research

After the discussion and the limitations, here are three recommendations for further research to depict the whole gap model completely:

- In-depth interviews with non-Chinese students who have experienced PBL at Stenden University to compare the difference between Chinese and non-Chinese' perceptions of PBL tutors.
- Interviews with PBL tutors or using the questionnaire about tutor's general and intercultural competences to help identify possible gaps between customer-driven service designs and standards (Zeithaml, Bitner, & Gremler, 2006) and PBL practice at Stenden University.
- Observing the interaction between Chinese students and PBL tutor in PBL sessions, to relate the actual behavior of Chinese students and their assessment of their satisfaction of PBL tutors.

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Chapter 3
Business Learning in Large Groups: Experimental Results of Problem-Based Learning

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3.1 Introduction

The incorporation of innovation into teaching routines in a university setting invariably runs up against various obstacles. Problems linked to student numbers in each group, student motivation, the necessary technical or infrastructural resources or time constraints on their implementation are usually cited as the causes (or as the justification) that make it impossible to introduce changes into teaching and learning processes. The result is that traditional teaching methods predominate in university classrooms, which are highly teacher-centred and which entail standard assessment systems. One important drawback to introducing active-learning processes, such as problem-based learning (PBL), is that they are designed for small groups of students.

Business and management courses are among the most widely demanded in both the academic and the professional world, which means that it is normal to have high student numbers on each course. The need to work with large groups in this area is standard practice in many universities (particularly in southern Europe). This generates important difficulties in the use of practical, student-centred learning, such as the case-study method or problem-based learning. One of the constraints on applying problem-based learning techniques to the teaching of management (Coombs & Elden, 2004) is the size of the group. However, it is possible to adapt the latter technique to specific contexts and, in particular, to work with large groups. Miller (2004) sets out his experience with the use of PBL on an organisational behaviour course with 300 students. Following a similar logic, the application of a version adapted to management teaching is proposed here for a degree course with more than 400 students divided into 4 groups.

This chapter examines the process of generating an innovative methodology for the teaching of management at university level and conducts experimentation to evaluate and validate the results. The methodology is applied to large groups

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and involves various teachers with responsibility for a single subject module. Our research sets out an experimental design over a time span of two academic years that allows us to arrive at scientifically valid results on the proposed teaching method and the academic results achieved by the students (at two levels, the first being subjective – overall satisfaction with the teaching methods – and the second objective – academic results). The planning and reasoning behind the experiment have been detailed at an earlier stage (Gallego & Casanueva, 2007).

The experiment and its evaluation are grounded in the process followed by the business school of the University of Seville to adapt its courses to the requirements of the European Higher Education Area. The philosophy underlying this centre's proposals on European convergence is expressed in the generation of a number of important and varied teaching innovations in different subject modules and knowledge areas, in such a way that they may be assessed on an ongoing basis by the teaching staff, the institution and the students. The aim is to identify a set of feasible and successful innovations and to evaluate the appropriateness of their being used more widely in the future. Furthermore, it was intended to monitor the innovative process itself, so that the final outcome would lead to a sort of catalogue of good practice for similar university processes (Casanueva & Vazquez, 2007).

The objective of this work is to demonstrate evidence that active-learning-based teaching methods are better than traditional teaching methods, in terms of both student satisfaction and academic results, even when working with large groups. To that end, the following sections describe the experiment performed within a subject module.

The next section sets out the teaching innovation that was developed, which represents the independent variable in the experiment, as well as contextual factors that may help to interpret the experimental results. The third section explains aspects of the research methods; the penultimate section the results obtained in terms of student satisfaction and academic results; and finally the last section the conclusions that may be drawn from the study as a whole.

3.2 Innovation in Business Studies

Following various years of actively participating in the adaptation of the tourism degree at the business school of the University of Seville (from the preparation of the common guidelines for all universities in Andalusia up until their practical implementation over a number of academic years), it was thought that more innovative methods could be introduced into the management module. Until that time, any changes in teaching methods had affected neither the practical classes (traditionally associated with the case study, as the basic tool in business studies with a proven track record), nor the theoretical classes (centred on the lecture hall and backed up by bibliographies specially compiled for the subject module). Any such changes consisted of adding complementary activities to the standard classes such as attending meetings of directors and of business people in the area being studied by the students, as well as learning the subject matter of the module through the

projection of films and by holding semi-directed debates on their contents. However, the proposed innovation, an adaptation of the problem-based learning (PBL) method, implied an important change, insofar as it meant doing away with all lecture hall presentations as a teaching method on the subject module.

There is confusion over what problem-based learning actually is, due to which various definitions exist, such as those of Barrows and Tamblyn (1980), Albanese and Mitchell (1993), Vernon and Blake (1993), Schmidt (1993), Ross (1991), Walton and Matthews (1989), Charlin, Mann, and Hansen (1998), Barrows (1986) and Harden and Davis (1998); all these authors show how this term is employed to cover different concepts with different meanings. Thus, there are authors (Davis & Harden, 1999; Harden & Davis, 1998; Harden, Sowden, & Dunn, 1984; Nienke & Louk, 2000) who believe that problem-based learning (PBL) is a continuum, more than a process that is very close to autonomous learning for the student. PBL can be organised around two basic principles (Bridges, 1992; Rhem, 1998; Ross, 1991; Savery & Duffy, 1995): first, the starting point of the learning process is usually a problem that the student wishes to resolve; second, it is an educational approach in its own right more than a sporadically used technique in a traditional educational programme. To these two principles we might add a third that is explicit or implicit in all definitions of PBL: it is fundamentally a student-centred rather than a teacher-centred method (Brown, Collins, & Duguid, 1989; Charlin et al., 1998; Coombs & Elden, 2004).

As any other method, problem-based learning has advantages and disadvantages (Davis & Harden, 1999; Knowles, 1980; Norman & Schmidt, 1992; Schmidt, 1993). Among the former, we may say that it facilitates the acquisition of generic abilities or personal skills, such as an ability to solve problems, and communication and team-work skills. Moreover, when identifying the central core of the subject matter, students are able to reduce the information that might otherwise come to overload them. It also applies a deep approach to learning and prepares the students for adult learning skills that they will need later on to apply continuous learning in their professional life. It enables students to develop an organised method of working with their knowledge. Generally speaking, the literature on the principles of adult learning suggests that people learn more whenever they are prepared and motivated to learn, when they decide on relevant contents and participate in decisions that affect their learning (Westberg & Jason, 1993).

With respect to some of the disadvantages of PBL pointed out by certain authors (Davis & Harden, 1999; Hemker, 1998), we may highlight among other points that knowledge acquired through PBL tends to be disorganised; the method makes it very difficult for students to identify a good teacher; PBL requires skills that many teachers do not have; and the system does not motivate the teaching staff to share knowledge with students.

A number of steps in PBL have been identified and described (Bridges, 1992; Davis & Harden, 1999). It begins with the situation problem that is usually presented to students without their having studied it beforehand. The students, normally working in groups, study the case and identify terms and concepts which are unfamiliar to them. As a first step, the teacher can provide additional information to students

if they request it, after which there is a period of private study. Students approach their learning tasks by accessing educational resources. When the group meets up again, students demonstrate what they have learnt and apply their learning to the problem in the case study. The group of students might be in a position to fully explain the circumstances identified in the problem shown in the case study, but it is equally possible that new learning topics might arise that would require further periods of individual study. Having finished the study period, the group summarises the explanation of its answer to the case study. During this step, students organise their learning in relation to the problem in the case study, which will help them to understand what was learnt when a similar problem or situation arises later on in professional life. The final step in the PBL process is to extend the learning to other situations to which the knowledge, the abilities and the attitudes may be applicable.

However, PBL is more suited to a smaller group of students (30–40), which is why it needs to be adapted for use in the context of teaching large groups and why it leads to more uncertain results (Coombs & Elden, 2004; Miller, 2004).

The teaching innovation proposed for teaching management on the course leading to a tourism degree involved various changes to this logical process of problem-based learning. They respected its philosophy, but were meant to adapt the method to the particular context of large groups (up to 130 students) and to combine it with other teaching methods and material (case studies, films, text books, conferences and so on).

Before the start of the classes, classroom materials were prepared for each of the sessions, consisting of a file handed out to each group (of between six and eight students due to the high student numbers in the class) in each class. The file comprised two large sections: the first contained a series of theoretical questions referring to the teaching content of the class and the second set out a practical case study (problem) that described a news item detailing a current affairs situation related to the topic being taught. It also contained a series of questions referring to the practical case study, divided into as many classes as were allotted to each topic.

The procedure followed in the theoretical classes, each of which lasted 90 minutes, was the same: students examined the material for the following session at home, although they were given 15 minutes to review it at the start of the class. Afterwards, working in groups, they had to respond to the theoretical questions through answers that were shared with the entire class, each group explaining its own answers to one of the questions. About 30 minutes were given to these two steps. Subsequently, the group moved on to answer the questions relating to the application of the materials covered in the practical case. Once again, the answers were shared between the groups, following the same procedure as in the part for the theoretical explanation which also lasted 30 minutes.

The method was tested over the 2005/2006 academic year with one of the topics in the programme, in order to confirm that the design and the time spans were feasible for the large groups with which we were working. We also wished to find out whether it could in reality be used and to ascertain the opinions held by the students in comparison with their opinions on the methods applied in the theoretical classes of the module. As the results were satisfactory, we began with a certain degree of security regarding the validity and the effectiveness of the innovation.

3.3 Methodology

In order to test the appropriateness of switching from traditional teaching methods (lecture combined with business case studies) to other more innovative ones (problem-based learning) in business learning and teaching, an experimental design was prepared to collect data on four groups of students over two academic years.

The students who made up the population under study were enrolled on the management module of the tourism degree at the business school of the University of Seville over the 2005/2006 and 2006/2007 academic years.

The total number of enrolled students in the first of the two academic years was 404, as against 412 in the second year. The distribution of students into groups reflects the official groups for the subject module which are, to a great extent, freely chosen by the students. Two groups attend taught classes in the morning and another two in the afternoon. The distribution of students into groups for morning and afternoon classes is shown in Table 3.1.

Two types of data were obtained from this population. The first data set refers to the academic results. The information was taken from the results published in the academic records of the subject modules relating to the first set of exams held on each of the two courses under study. This information is in the public domain. The second data set refers to the opinions of students on the classroom method and their overall satisfaction with it. In order to collect this information, a group of specific questions were prepared that were inserted into a larger questionnaire with the aim of appraising and evaluating the planning and the development of the subject module throughout the course. The questionnaire was anonymous and was collected on the last day of class in each group. These questions are only available for the 2006/2007 academic year and the number of responses per group is shown in Table 3.1.

A quasi-experimental design was used for the appropriate treatment and analysis of the data. The reasoning underlying the proposed experiment has been documented earlier on (Gallego & Casanueva, 2007). It fundamentally consists of using the teaching of the aforementioned subject module through the adapted PBL method as an independent variable. Manipulation of this independent variable would be kept to a minimum, as only its presence or absence in the classroom was controlled. The dependent variables to be measured are student satisfaction with the classroom teaching method and the academic results. Measurement of satisfaction is broken down into satisfaction indicators, whereas the yardstick for academic results measures their percentile variations over the two academic years under consideration.

The non-random distribution of students between different groups and the reference to other groups in the measurement of the dependent variables in use mean

Table 3.1 Enrolments and questionnaire responses by academic year

		Total	Group 1	Group 2	Group 3	Group 4
2005/2006	Enrolled	404	135	117	87	65
	Enrolled	412	100	99	130	83
2006/2007	Responses	179	63	61	35	20
	Response (%)	43.45	63.00	61.62	26.92	24.09

that the design must be classified as quasi-experimental, rather than as a "true" experiment. In any case, the same experimental design parameters were used once the students were assigned to the groups. Two of the four groups were considered experimental groups and the other two control groups. With the aim of not influencing the experiment, continuity of teaching staff was maintained for each of the groups throughout the two academic years under study.

The two experimental groups were exposed to the teaching innovation described in the preceding section over an entire academic year, while the two control groups continued with the traditional teaching system based on lecture hall presentations. All students were examined together and were not separated by groups, and supervision of the exams was at no time entrusted to teachers that were teaching the experimental groups.

Data analysis was performed in various different ways in order to confirm the influence of variations in the independent variable on the dependent variables: (1) student satisfaction was statistically examined through a test of averages included in the SPSS (Statistical Package for the Social Sciences) (2) and the academic results were analysed using techniques taken from Probability Theory, namely relative risk (RR); indicators that are widely used in clinical experiments that are very similar to the design used in this case. With regard to the academic results, the objective of our experiment was to test the degree to which students were motivated to complete the subject module (reflected in students sitting the final exams). It also assessed the degree of improvement in the qualifications, expressed in terms of categorical variables and which may also be grouped at intervals between them. In practice, the analysis of total data taken from categorical variables in any experiment that tests the degree to which the results of two populations (experimental groups and control groups) vary according to the independent variable at the core of the experiment (educational system) is relatively common in the experimental sciences, but is less common in the field of management. Indicators widely used in fields such as biology, nursery or medicine (Fleiss, 1986) were therefore used for the analysis of the academic results of the experiment. Among the possible indicators (odds ratio, absolute risk reduction or number needed to treat), relative risk (RR) was selected because it allows for an intuitive understanding of the degree of improvement in the results that arise between the different categories of academic qualifications (Cook & Sackett, 1995; Fleiss, 1981; Schechtman, 2002). RR is a simple ratio that indicates the improvement that has taken place due to the experimental intervention (change towards problem-based learning) and its relative amount.

3.4 Results

With respect to the students' opinions gathered from the questionnaire, Table 3.2 shows the most significant statistics on the variables used in the questionnaire to rate the teaching system, which are

SAgreeable: the teaching system has or has not contributed to making the subject module more agreeable

Table 3.2 Position and dispersion measurements

	Groups 1 and 2		Groups 3 and 4	
Variables	Avg./Median	Stand. dev./interquartile range	Avg./median	Stand. dev./interquartile range
SAgreeable	4	1	4	2
SAssistance	4	1	4	1
SLearning	4	1	4	1
SPass	4	1	4	1
Assessment	7.38	1.96	7.33	1.82

SAssistance: the teaching system has or has not had a positive influence on attendance at class

SLearning: the teaching system has or has not been an important factor when learning the subject module

SPass: the teaching system is or is not an important factor in order to pass the subject module exams

Assessment: A rating of 1–10 that the student gives the subject module

In the four first questions the student had to rate each sentence between 1 and 5, 1 signifying complete agreement and 5 total disagreement with its content.

As for the rest of the data and analysis, the total sample of students was grouped into two large sub-samples: a first one that covers groups 1 and 2 (following the experimental teaching system) and a second that covers groups 3 and 4 (following the traditional teaching system). As it is a matter of nominal-type variables, Table 3.2 shows the median or the interquartile range, with the exception of the final variable that is quantitative for which reason both the average and the standard deviation are shown.

First, we may see that students' opinions were very similar in the two sub-samples. We performed the T-test for independent samples, in order to establish whether this assessment was correct. Accordingly, we analysed whether belonging to groups 1 and 2 entailed a difference in the averages for the set questions with respect to groups 3 and 4. In effect, the results show that in no case is there a significant difference in averages between the samples made up of groups 1 and 2 and those of groups 3 and 4. In conclusion, we may affirm that, with regard to their perceptions, when students have not experienced the two systems and, as a result, cannot establish comparisons, their rating of the teaching system is the same and is satisfactory for both the experimental and the traditional systems.

The second data group with which we wished to work comprised the students' academic results. Our intention was to find out whether a different teaching system had any influence over the students' learning achievements. As commented on earlier, there are two groups (1 and 2) that followed the experimental system, while two others (3 and 4) followed the traditional system. In order to isolate any effect on the results that might be caused by the teacher, this factor was maintained unchanged

over the 2005/2006 and 2006/2007 academic years. The first point that we wished to analyse was how the grades of these two groups have evolved over the two years.

The grading system for university qualifications in Spain is standardised throughout the country. It begins with the fundamental distinction between students who are either present or absent at an exam, so there are students who may enrol on a course but will not sit for the relevant examination. This gives those students a greater opportunity to achieve a pass on a degree course, as it is only possible to sit an examination a limited number of times. For students who are present at an examination, the grades are fail [*Suspenso*] (if they have not passed the exam, which means a mark of below 5 out of 10), pass [*Aprobado*] (5–7 out of 10), good [*Notable*] (7–9 out of 10), very good [*Sobresaliente*] (9–10 out of 10) and excellent [*Matricula de Honor*] (an exceptional grade for students with marks over 9 and which may only be awarded to a limited number of students). In general, the term subject module pass [A*probado Asignatura*] is also used to refer to all grades awarded for having passed the exam. The expression "with a good grade [*Con Nota*]" for a student means that the latter has successfully gained a grade of either good, very good or excellent.

At first sight it appears that not only is the reduction of student numbers in the categories of absent and fail greater in groups 1 and 2, but the improvement in their marks is also much greater in these groups than in the non-experimental ones. However, given that there is a difference in the numbers of enrolments in both groups, we decided to switch to percentages to avoid any such impression being due, exclusively, to these circumstances. Table 3.3 shows the results for the total numbers of enrolments in each group for each course.

We wished to investigate the grouping of students in the different categories. In the first place, we analysed the percentages of students that sat the subject module exams, as opposed to those that did not (absent). Our interest was linked to the fact that students who did not sit the exam abandon the subject module, at least for the duration of that academic year; this means that they have to repeat the enrolment process and pay the corresponding fees once again if they wish to obtain the degree.

To do so, the first point we wished to analyse was whether the new teaching system motivated students to commit themselves to the subject module and to try to pass the exam, instead of abandoning the course. In Table 3.4, the relevant information is shown for groups with the new learning system (groups 1 and 2) and those following the traditional system (groups 3 and 4).

We can see that the percentile increase in students following the new system who did not abandon the subject module (present) is considerably higher (8.6%) than the percentage of groups that followed the traditional system (4.36%).

Table 3.3 Grades awarded on the 2005/2006 and 2006/2007 degree courses

Groups	Course	Enrolled	Absent	Fail	Pass	Good	Very good	Exc.
1 and 2	2005/2006	252	26.19	14.29	36.51	21.43	1.59	0.00
	2006/2007	199	17.59	10.55	18.59	40.20	12.06	1.01
3 and 4	2005/2006	152	41.45	13.16	32.24	12.50	0.66	0.00
	2006/2007	213	37.09	11.27	22.54	27.70	1.41	0.00

Table 3.4 Percentage of students present and absent at the exam by academic years and by *groups*

Groups	Course	Absent (%)	Present (%)
1 and 2	2005/2006	26.19	73.81
	2006/2007	17.59	82.41
3 and 4	2005/2006	41.45	58.55
	2006/2007	37.09	62.91

In second place, we proceeded to group all students that sat the subject module, which is to say, those that had made an effort to pass it, into two groups: one which contains the students that have failed the exam and another that contains those students that have passed it. The results are shown in Table 3.5.

Finally, we broke down the two groups shown in Table 3.5 into three categories: "fail" (students that have failed the exam, less than 5), "pass" (students that have passed the subject module with marks of between 5 and 7) and "with a good mark" (students that have passed the subject module with marks of between 7 and 10 points). The results are shown in Table 3.6.

It may be seen that the students who failed and those who passed with marks of between 5 and 7 have fallen, whereas the students that passed the subject module, and did so with a good mark (between 7 and 10), have increased.

We wished to confirm this perception which could be wrong, even though it appears self-evident in statistical terms. Given that we are working with the total population encompassed within the study (students following the management module of the tourism degree at the business school of the University of Seville), we decided to use Probability Theory to perform this test. It was considered that the concept of relative risk (RR) would be useful for the purposes of our study. This concept is used in studies that are designed to investigate a factor (a risk factor) that the researcher believes might be associated with the development of a specific circumstance. In our case, the risk factor is following the experimental

Table 3.5 Student percentages that failed and that passed the subject module by academic years and by groups

Groups	Course	Fail (%)	Pass (subject module) (%)
1 and 2	2005/2006	19.35	80.65
	2006/2007	12.80	87.2
3 and 4	2005/2006	22.47	77.53
	2006/2007	17.91	82.09

Table 3.6 Grades in percentages over enrolments on the 2005/2006 and 2006/2007 courses, grouped by categories

Groups	Courses	Fail (%)	Pass (%)	Good mark (%)
1 and 2	2005/2006	19.35	49.46	31.18
	2006/2007	12.80	22.56	64.63
3 and 4	2005/2006	22.47	55.06	22.47
	2006/2007	17.91	35.82	46.27

Table 3.7 Percentage increase for present and absent at the exam in each sample over the academic years 2005/2006 and 2006/2007 and relative risk

Groups	Absent	Present
1 and 2	−32.85%	11.66%
3 and 4	−10.51%	7.44%
Relative risk	3.12	1.57

teaching course, and the condition to be brought about is the achievement of better academic results.

We have two samples: one made up of groups 3 and 4, not subject to the risk factor (traditional teaching system), and another, groups 1 and 2, exposed to this factor (experimental teaching system). In the first place, we analysed whether the percentage of students in each sample that sat the exam or that decided to abandon the subject module rose or fell between the 2005/2006 and 2006/2007 academic year (Table 3.7).

Two probabilities arise here: an improvement in the results of those students exposed to the risk factor (experimental system) and an improvement in the results of those students that were not exposed to it (traditional system). An approximate measure of the risk factor impact may be calculated on the basis of these probabilities. This measurement, referred to as RR, is the ratio of these two probabilities. The results of calculating this ratio in order to establish how it has evolved for students present and absent at the exam are shown in Table 3.7.

It should be pointed out that the ratio of those absent at the exam is calculated from the coefficient of two negative percentages, which means that there was a fall in the students that were *absent* at the exam in both groups (the experimental and the control groups). Thus, the RR ratio will reveal which of the two groups (the experimental or the control group) had the largest decrease in students that abandoned the subject module.

Obtaining 1 in this ratio would imply that there is no relation between the experimental system and the improvement in the results; if the ratio were less than 1, it would mean that to follow the traditional system (no exposure to the risk factor) would improve the results. Finally, a ratio of over 1 would mean that exposure to the experimental system had improved the results.

We can see that in the two cases, the ratio is over 1 and, in addition, in the case of those *absent* at the exam, it is higher than 3, which is quite high. Thus, in both cases the indicators are telling us that more students sit the exams in the experimental groups than in the control groups, and that students are therefore more motivated in those groups.

Subsequently, the same procedure was followed but only with students who sat the subject module exam. Our objective was to analyse the way in which the new learning system impacted on the students passing or failing the subject module. Accordingly, Table 3.8 shows the data for students that failed the exam and for students that passed it.

Table 3.8 Percentage increase in fail and pass for each sample over the academic years 2005/2006 and 2006/2007 and relative risk

Groups	Fail	Pass (subject module)
1 and 2	−33.85	8.12
3 and 4	−20.29	5.55
Relative risk	1.67	1.46

Table 3.9 Percentage increase in each category and sample over the academic years 2005/2006 and 2006/2007 and relative risk

Groups	Fail	Pass	Good mark
1 and 2	−33.85%	−54.39%	107.28%
3 and 4	−20.29%	−34.94%	105.91%
Relative risk	1.67	1.56	1.01

Once again we find that the RR ratio has values of over 1 (note that in the case of those that *fail* the exam, as in that of those *absent* at the exam, the ratio is calculated from negative percentages), which indicates that the experimental group improved its results in comparison with the control group.

Finally, we once again repeated the procedure for students that sat the exam and obtained either better (7–10) or worse marks (5–7) in the exam. The results are shown in Table 3.9.

Here too, the results indicate a RR ratio of over 1. In this case, it should be highlighted that for the categories of *fail* and *pass* (between 5 and 7 points) in the exam, in both cases the ratio was calculated from negative percentages. The data therefore show that the significant fall in *fail* among students in the experimental groups also occurred with lower marks (between 5 and 7 points). However, the relative improvement of having higher marks (between 7 and 10) is very modest in the experimental group.

All in all, the improvement in the academic results attributable to the teaching system in use (an adaptation for large groups of problem-based learning) occurs in three areas: more students sit the exam, more students pass the subject module and, although only to a limited degree, more students improve their marks.

3.5 Conclusions

The results of the teaching innovation modelled on problem-based learning in the teaching of management to large groups clearly shows an improvement in the academic performance of students over the two academic years and between the four groups which were used to develop the experiment. Improvements were made to the principal parameters used to measure the academic results. With the new method, the number of absent exam candidates has fallen substantially, exam passes are up and all grades have increased, although the highest grades only slightly. However, student satisfaction with the traditional teaching system (based on formal lectures)

as much as with the innovative one (problem-based learning) presents no significant differences between the experimental and the control groups. It would appear that in the opinion of the students the innovative system does not affect the agreeableness of the classes, nor does it lead to greater attendance, nor does it increase learning, nor does it seem to affect their final grades. Moreover, neither does it influence the overall assessment made by the students of the subject module.

This difference between the objective results and the subjective impression of the students with respect to the way in which the teaching develops is of interest, as the current tendency is preferentially centred on students' opinions in the assessment of service quality in university teaching. The superiority of one method over another was clearly demonstrated in the experiment, but this improvement was not perceived by the students (who had nevertheless received the appropriate feedback with the mid-course exams of the subject module). It may also be due to the experimental groups not having experienced the earlier version of the subject module. In any case, it seems that student satisfaction with a subject module might be due to other factors unrelated to the teaching method in the classroom (agreeableness of the subject matter, complexity, teachers and so on), in which case (if the experimental results are generalised) any change in university teaching does not appear to run up against excessive resistance on the part of the students.

Any possible generalisation of the results is conditioned by certain weaknesses in the investigative process. In particular, the experimental conditions have not been manipulated in a totally random way (particularly, the placing of individuals in groups) and the results obtained are in relative terms (percentile increases with respect to the previous academic year). Moreover, it deals with a subject module and involves the adaptation of a general teaching method (problem-based learning). This makes it necessary to initiate a new cycle of research, in order to understand these results in greater detail, and data will be gathered over further periods of time, in case the time factor plays a prominent role in either the academic results or in the assessment of student expectations.

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Chapter 4
Business Students' Self-Theories, Goal Orientations, and Achievement Motivations

Dirk T. Tempelaar, Sybrand Schim van der Loeff, and Wim H. Gijselaers

4.1 Introduction

The objective of this study is to investigate the relationship between on the one side students' self-theories of intelligence and goal orientations and on the other side their expectancy-value based achievement motivations. Empirical research in expectancy-value models indicates that constructs on which these models are based are important determinants of academic choice and performance (Eccles et al., 1983; Wigfield & Eccles, 2000, 2002). Since choice of tasks and persistence in tasks strongly depend on students' beliefs about their ability and their beliefs on the role of effort in their learning, Wigfield, Tonk and Eccles (2004) hypothesize that Dweck's model of self-theories (Dweck, 1999; Dweck & Molden, 2005) is causally related to Eccles' expectancy-value model. The empirical investigation of this relationship in the context of first-year university students studying four academic subjects out of an economics and business program is the main research question. A preceding issue that will be investigated is the development of a measurement model for self-theory constructs.

4.2 Theoretical Framework

4.2.1 Dweck's Self-Theory of Intelligence and Goal Orientations

According to Dweck's self-theory of intelligence (Blackwell, Trzesniewski & Dweck, 2007; Dweck, 1999; Dweck, Chiu, & Hong, 1995; Dweck & Molden, 2005), individuals can be placed on a continuum according to their implicit views of where intellectual success comes from. Some believe their success is based on innate ability; these are said to have a "fixed" implicit theory of intelligence, also called entity theory, since they think of intelligence as an unchangeable entity. Others, who

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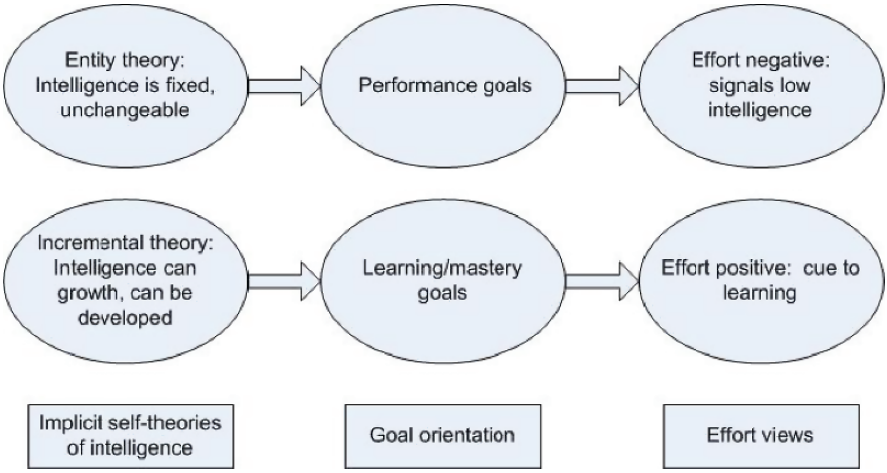

Fig. 4.1 Hypothesized relationships between implicit self-theories of intelligence, goal orientation in learning, and views of effort

believe their success is based on hard work and learning, are said to have a "growth" theory of intelligence, also called an incremental theory; in their eyes, intelligence is a malleable entity that can be developed. Implicit theories on intelligence are important determinants of learning because individuals with a growth theory tend to adopt different goal orientations, different views of the utility of effort in learning, and different strategies to approach challenges and overcome setbacks than individuals with a fixed theory. Relative to students with a fixed implicit theory, students with a growth theory focus more on learning or mastery goals, than on performance goals. Students with a fixed theory are mainly concerned with how smart they are, prefer tasks they can do well, and avoid those on which they can make mistakes and not look smart. In contrast, students with a growth theory want to challenge themselves to increase their abilities and do not mind failing at first. Next, implicit theories are connected with views on the utility of effort. In the fixed intelligence view, (the need for) effort signals low intelligence, thus effort is viewed as a negative thing. In the growth intelligence view, effort is the cue to learning, to enlarging one's intelligence, and thus viewed as a positive thing. Figure 4.1 provides a schematic overview of the most important relationships hypothesized in Dweck's theory.

4.2.2 Eccles' Expectancy-Value Based Theory of Subject-Specific Achievement Motivations

Expectancy-value based models for achievement motivations originated from the work by Atkinson and became well known by the work of Eccles and co-authors (Eccles, 2005; Eccles et al., 1983; Wigfield & Eccles, 2000, 2002; Wigfield, Tonk & Eccles, 2004). Models with the expectancy-value theory as the interpretative frame-

work are used to understand formation of motivations (Chen, Gupta & Hoshower, 2006; Eccles & Wigfield, 2002; Kopelman & Thompson, 1976; Wigfield & Eccles, 2000, 2002). Expectancy-value models take their name from the key role of two components in the motivation to perform an achievement task: students' expectancies for success and the task value – the value they attribute to succeeding the task. This theory has been successfully applied in explaining achievement motivations for very different tasks, such as learning and choosing learning tasks (Wigfield & Eccles, 2000, 2002), doing scientific research (Chen, Gupta, & Hoshower, 2006), or job performance (Kopelman & Thompson, 1976). In the present study, achievement motivations are operationalized by adopting a version of the expectancy-value model that incorporates an affective construct, developed by Schau and co-authors (Schau et al., 1995). The explicit introduction of the affective component is motivated by the vast evidence of the role of such affective factors in learning in mathematics-related domains. For example, in their review article on the role of motivational variables on learning in the statistical domain, Gal and Garfield (1997) distinguish between process-related and outcome-related reasons to take affective factors into account. Process considerations refer to the impact of affective factors on learning and teaching and the willingness of students to enrol in elective courses. The outcome-related reasons refer to the goals of education, where the development of problem-solving capabilities, literacy and related communication skills, and other domain-related skills become increasingly more important. To reach those goals, it is crucial to remove negative attitudes and beliefs and create positive ones.

Schau's expectancy-value model contains six constructs. The first two are expectancy factors that deal with students' beliefs about their own ability and perceived task difficulty: Cognitive Competence and Difficulty. The three constructs Value, Affect, and Interest together constitute the subjective task-value component of modern expectancy-value models (Wigfield & Eccles, 2000, 2002). Similar to standard expectancy-value models, the first construct, Value, stands for the extrinsic value of doing the task: how useful it is for the student, in terms of education or career. In most expectancy-value models, the intrinsic aspects of task value are collected in one construct, such as the "interest and enjoyment value" in Eccles (2005). The contribution of Schau and co-authors is to decompose intrinsic aspects into the affective construct Affect and the attitudinal construct Interest. Introduce a second task-related attitude: Affect. All expectancy and value constructs together are hypothesized to impact on choices students make with regard to their education. Effort invested in learning is one such variable and, in the specific case of students in an undergraduate program who can only take required courses and no optional courses, even the main one. Figure 4.2 provides a schematic summary of the expectancy-value model applied in this study.

In their study on the role of subject-specific achievement motivations in learning in a business program, Tempelaar et al. have adapted the SATS instrument from the statistical domain to a range of business-oriented subjects. The adapted instrument is demonstrated to provide a valid description, from both internal and external perspectives, of subject-specific achievement motivations. In addition, the decomposition of intrinsic task values into affective and attitudinal aspects proved

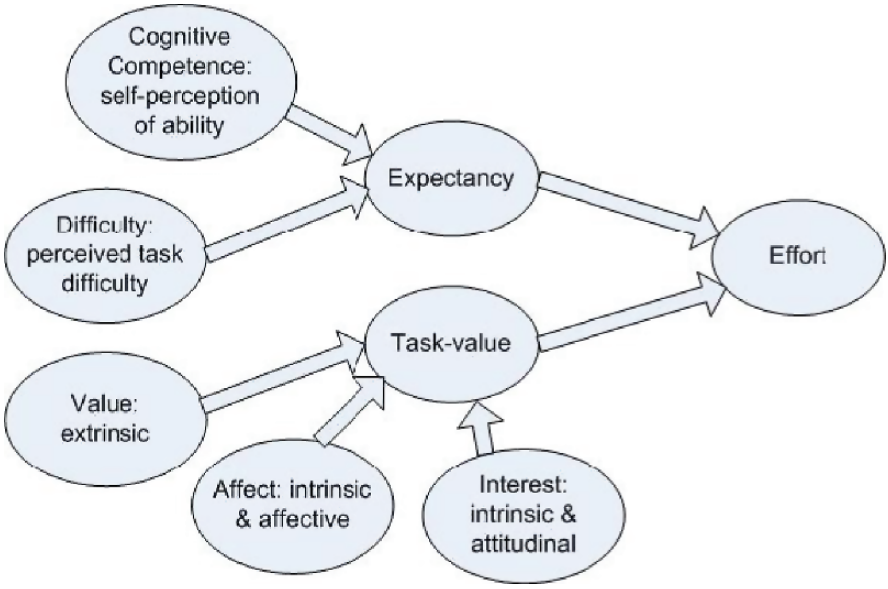

Fig. 4.2 Constructs in the expectancy-value model and their relationships

to be empirically meaningful, since affective and value-related constructs take opposite positions along the spectrum of subject attitudes being general in nature, that is shared by several subjects, vs attitudes, being quite subject specific. In this study, we will investigate motivations measured with the adapted SATS instrument in four different subjects: mathematics, statistics, organizational theory, and marketing.

4.3 Method

4.3.1 Data

Participants in this study were 714 first-year university students in two programs International Economics and International Business Studies. In the first term of their first academic semester, all 854 students in these two programs took two required, parallel courses: an integrated course organizational theory and marketing, two subjects from the behavioural sciences domain, and an integrated course mathematics and statistics. Mid-term, students filled a self-report questionnaire on self-theories and goal orientations, as part of a data-analysis directed student project for statistics. In the last week of the term, they filled a second questionnaire measuring achievement motivations in the four subjects of the two integrated courses: organizational theory, marketing, mathematics, and statistics. Response on all questionnaires is

714. Of those students, 32% are female against 68% male, and 39% are of Dutch origin against 61% international students.

4.3.2 Measures

Dweck's self-theory of intelligence and goal orientations. The instrument used in this study is primarily based on Dweck's monograph (Dweck 1999). In most empirical work, Dweck and co-authors represent self-theories of intelligence by a three-item single scale that is regarded as bipolar, with the entity position as one pole and the incremental position as the opposite pole of the entity position. In reaction to the review article of Dweck, Chiu, and Hong (1995), several commentaries indicate that the implicit assumption of such a bipolar subscale, the fact that entity and incremental positions are constrained to be fully linearly dependent, may not satisfy. In Dweck (1999), separate items for the incremental position and the entity position are provided, although the author suggests incorporating all items in one single scale (with half of the items reversely scored). Table 4.1 contains the four items belonging to the entity subscale based on Dweck (1999), Dweck, Chiu, and Hong (1995), whereas the four items contained in Table 4.2 express the incremental subscale and are based on Dweck (1999). Deviating from Dweck (1999), all items were measured along a seven-point Likert scale, instead of a six-point one.

Dweck (1999) hypothesizes that self-theories predispose achievement goals, but that this relationship refers to relative, and not absolute, measures of learning (mastery) and performance goals: "We have used some of these [independent learning

Table 4.1 Items, mean, standard deviation, and Cronbach α for entity theory of fixed intelligence subscale

Items
1. You have a certain amount of intelligence, and you can't really do much to change it.
2. Your intelligence is something about you that you can't change very much.
3. To be honest, you can't really change how intelligent you are.
4. You can learn new things, but you can't really change your basic intelligence.
Mean: 3.65 Standard deviation: 1.32 Cronbach α: 0.88

Source: Dweck (1999); Dweck, Chiu, and Hong (1995).

Table 4.2 Items, mean, standard deviation, and Cronbach α for entity theory of malleable intelligence subscale

Items
1. No matter who you are, you can significantly change your intelligence level.
2. You can always substantially change how intelligent you are.
3. No matter how much intelligence you have, you can always change it quite a bit.
4. You can change even your basic intelligence level considerably.
Mean: 4.42 Standard deviation: 1.22 Cronbach α: 0.86

Source Dweck (1999).

and performance] goals in our own work, and when we do, we often find no difference between entity and incremental theorists. . . .However, when we use measures that pit learning goals against performance goals-asking which is more important to the students. . ., then we find a clear relation with students' theories of intelligence" (Dweck, 1999, p. 184). The suggested four-item, bipolar scale is described in Table 4.3 (with the fourth item reformulated from a two-choice selection format, into a seven-point Likert scale format). In recent empirical work, Dweck and co-authors have used both PALS (Midgley et al., 2000) based scales and new scales first published in Grant and Dweck (2003). Therefore, in addition to Dweck's bipolar scale, we included the goal orientation items based on the unipolar PALS scales of mastery goal, performance approach goal, and performance avoidance goal in our study.

The last part of Dweck's model refers to students' beliefs on the role of effort in learning. Dweck hypothesizes that implicit theories predispose how students view effort. This hypothesis suggests two subscales, representing opposing beliefs with regard to the role of effort. On the basis of representative students' statements reported in Dweck (1999), two subscales were constructed, of which the items are contained in Tables 4.5 and 4.6.

Eccles' expectancy-value model is used as framework to operationalize achievement motivations. Based on the expectancy-value model, Schau and co-authors (Schau et al., 1995) developed a six-factor model of attitudes towards statistics. Following traditions in the domain of mathematics education, their model distinguishes affect from valuation aspects, by decomposing task value into three components: Affect, Value, and Interest. Two other factors are students' expectancy components: self-concept or Cognitive Competence and perceived task demand – Difficulty. The model is completed with the construct Effort. From this model, the instrument Survey of Attitudes Towards Statistics was developed, which was adapted to business subjects by the authors of this study (Tempelaar et al., 2006). Self-reports were administered using a seven-point, Likert- type scale.

Course performance measures available for both courses allow for multiple performance indicators for all four subjects. Indicators take different forms. For mathematics and statistics, performance indicators consist of students' scores in three

Table 4.3 Items, mean, standard deviation, and Cronbach α for scale pitting learning goal against performance goal

Items
1. (−) If I knew I wasn't going to do well at a task, I probably wouldn't do it even if I might learn a lot from it.
2. (−) Although I hate to admit it, I sometimes would rather do well in a class than learn a lot.
3. It's much more important for me to learn things in my classes than it is to get the best grades.
4. If I had to choose between getting a good grade and being challenged in class, I would choose for being challenged.
Mean: 4.28 Standard deviation: 0.83 Cronbach α: 0.39

Source: Dweck (1999), with item 4 being adapted from two-choice selection format to Likert format.

quizzes and the scores in the final exam. For the two behavioural sciences based subjects, organizational theory and marketing, indicators consist of two partial scores in the final exam: the score in the multiple choice part of the exam and the score in the essay part of the exam. For all four subjects, the two performance indicators were used to create one latent performance construct.

4.3.3 Statistical Analysis

As a first step in the analysis, items from the motivation self-report instruments were parcelled. The technique of item parcelling, where items from the same subscale are aggregated into several parcels or mini-scales, has been adopted in empirical studies for several reasons including (a) obtaining more continuous and normally distributed observed data; (b) reducing the number of model parameters to achieve a more attractive variable to sample size ratio; and (c) estimating stable parameters (Hau & Marsh, 2004). In our study, the size of the model relative to the sample size necessitates in itself the parcelling step in the estimation of the factor model of subject motivations.

In parcelling items, Hau and Marsh (2004) advise to counterbalance skewness in the case of strong non-normality by creating parcels out of item pairs with opposite skew. As a preliminary step to parcelling, the degree of non-normality of the data was determined. In the motivations data, most items fall in Hau and Marsh's category of "moderately non-normal", implying skew $= 1.0$ and kurtosis $= 1.5$; some items, especially related to effort, have somewhat stronger non-normality. In addition, all scales satisfy the typical pattern of self-report data described by Hau and Marsh of being slightly negatively skewed, except for the Difficulty items in the hard subjects math and statistics, which are positively skewed. A counterbalancing parcelling scheme was adopted, but since most items have skewness and kurtosis of same direction, the extent of counterbalancing achieved by this scheme is limited.

Models used in this study are of CFA (confirmatory factor analysis) or SEM (structural equation modelling) type. The CFA models do allow for correlated traits. In the subject-specific models, trait correlations represent the associations amongst different facets of the achievement motivations and amongst different facets of self-theories. In the multiple-subjects model, trait correlations represent, in addition to these factors, associations of similar achievement motivation factors for different subjects. Models were estimated with LISREL (version 8.72) using maximum likelihood estimation.

4.4 Results

4.4.1 Dweck's Self-Theory of Intelligence and Goal Orientations

Focusing first on the measurement model of Dweck's self-theories of intelligence, we find that that the Entity Theory subscale and the Incremental Theory subscale

demonstrate strong similarities (after reversion). The mean of the entity subscale is 3.65 (on a 1–7 scale), see Table 4.1.

Re-expressing the entity score as an incremental score by means of score reversion results into mean incremental score of 4.35 based on the entity subscale. The mean incremental score based on the incremental subscale equals 4.42; see Table 4.2. In six different studies, Dweck, Chiu, and Hong (1995) find mean incremental scores ranging from 4.08 to 4.55, with a median of 4.43 (after re-expressing their 1–6 scale into a 1–7 scale), implying that our outcomes are in line with other empirical findings. Reliabilities of both subscales are high, with α-values of 0.88 and 0.86, respectively.

To investigate Dweck and co-author's hypothesis that entity and incremental subscales can be integrated into one "implicit theory" scale, co-variation of item- and subscale means was analyzed. The subscale correlation equals -0.75. The item correlations are all high, with median absolute value of 0.61, and do not distinguish between item correlation within subscales and between subscales. An explorative factor analysis on the eight items results in a first eigenvalue of 5.11, against a second eigenvalue as low as 0.76. All these outcomes provide support to the hypothesis that entity and incremental items can be merged into one implicit theory scale, which will be used in the remainder of this study. The implicit theory scale constitutes all eight items in Tables 4.1 and 4.2. The reliability of the scale equals $\alpha = 0.92$.

Table 4.3 contains descriptive statistics of the four items pitting a learning goal against a performance goal. Students are somewhat stronger learning goal oriented than performance goal oriented, be it that the mean hardly exceeds the neutral level of 4. Most noticeable is the very low value of the internal reliability: 0.39. Except for the item correlation of the two positively phrased items, all other item correlations are only weakly significant, or even non-significant. As a consequence, the bipolar goal scale does not qualify as a reliable measurement instrument.

This finding differs markedly from the outcomes of the PALS goal orientation scales: see Table 4.4.

All three scales demonstrate high reliabilities. Students feel mastery oriented (mean 5.9 on 1–7 scale), but at the same time do not reject performance orientation: the means of the two performance goal orientation scales are just under the neutral level. Correlations between mastery orientation and the two performance orientations are absent or very weak, but the correlation between performance approach and performance avoidance is very strong: 0.78. Item correlations within approach and avoidance categories are similar in size as item correlations between categories, and an exploratory factor analysis on all nine performance goal items results in a

Table 4.4 Mean, standard deviations, and Cronbach αs for PALS mastery goal, performance approach goal, and performance avoidance goal

Scale	Mean	Standard deviation	Cronbach α
Mastery goal	5.87	0.83	0.88
Performance approach goal	3.53	1.18	0.89
Performance avoidance goal	3.92	1.11	0.78

Table 4.5 Items, mean, standard deviation, and Cronbach α for subscale Effort as a positive thing

Items
1. When you're good at something, working hard allows you to really understand it.
2. When something comes easily to you, you don't know how good you are at it.
3. Even geniuses have to work hard for their discoveries.
Mean: 4.85 Standard deviation: 0.78 Cronbach α: 0.20

Source: Dweck (1999), based on representative students' statements.

first eigenvalue of 5.25, against a second eigenvalue of 0.88. For that reason, all performance approach and performance avoidance items were merged into one performance goal orientation scale. The reliability of this scale equals $\alpha = 0.91$. Views on the role of effort are, from a measurement point of view, again problematic. Both subscales have very low reliability, as is clear from α-values of 0.20 and 0.41 in Tables 4.5 and 4.6 and, especially in case of viewing effort as a positive thing, correlations between item scores are absent.

An explorative factor analysis reinforces the finding that amongst the items based upon Dweck's model, only three proper scales distinguish. Three dominant factors that explain 19%, 17%, and 11% of the variation are visible, with the 4th factor explaining no more than 5%. These dominant scales constitute: performance goal (merging performance approach and performance avoidance from the PALS questionnaire); implicit theory (merging entity and incremental theory); and mastery goal (again from PALS).

Table 4.7 provides (sub)scale correlations of all measures from the Dweck model. Although Entity and Incremental subscales are so strongly correlated that in a factor analysis they load on the same factor, their behaviour towards other subscales demonstrates some characteristic differences.

As hypothesized by the Dweck model, the entity position is negatively related to the bipolar goal scale learning vs performance goal, and to the PALS mastery scale, and positively related to viewing effort as negative. The incremental position is positively related to the bipolar goal scale, as it is to viewing effort positive, and the PALS mastery goal. Beyond that, it is positively (be it weak) related to the two PALS performance goals. The correlations between the bipolar goal scale on one side and the three PALS goal measures on the other side, all possess expected signs. However, the correlations are rather weak. This pattern extends to the correlations between self-theories of intelligence and the several goal orientations variables:

Table 4.6 Items, mean, standard deviation, and Cronbach α for subscale Effort as a negative thing

Items
1. If you have to work hard on some problems, you're probably not very good at them.
2. You only know you're good at something when it comes easily to you.
3. Things come easily to people who are true geniuses.
Mean: 3.85 Standard deviation: 1.00 Cronbach α: 0.41

Source: Dweck (1999), based on representative students' statements.

Table 4.7 Correlations (with *p*-values within brackets) between subscales based on Dweck's model

	1	2	3	4	5	6	7	8
1. Entity theory	1.00							
2. Incremental theory	−0.75 (0.000)	1.00						
3. Learning vs performance goal	−0.10 (0.008)	0.11 (0.003)	1.00					
4. Mastery goal	−0.21 (0.000)	0.29 (0.000)	0.27 (0.000)	1.00				
5. Performance approach goal	0.02 (0.681)	0.10 (0.012)	−0.16 (0.000)	0.02 (0.649)	1.00			
6. Performance avoidance goal	0.00 (0.921)	0.10 (0.006)	−0.13 (0.001)	0.08 (0.037)	0.78 (0.000)	1.00		
7. Effort as a positive thing	−0.06 (0.107)	0.23 (0.000)	0.06 (0.098)	0.35 (0.000)	0.06 (0.144)	0.11 (0.004)	1.00	
8. Effort as a negative thing	0.16 (0.000)	−0.03 (0.448)	−0.18 (0.000)	0.03 (0.513)	0.19 (0.000)	0.24 (0.000)	−0.08 (0.026)	1.00

signs are in agreement with the Dweck model, but absolute values are low. In specific, self-theories are only a very modest predictor of the bipolar goal variable, in contrast to Dweck's expectation that relative goal measures are better predicted by self-theories than absolute goal measures. A similar observation can be made with regard to the correlations between goal variables on the one side and views of the role of effort in learning on the other side. Once again, the sign of all correlations is in concordance with the Dweck model. However, correlations are stronger with PALS goal variables, than with the bipolar goal variable.

4.4.2 Eccles' Expectancy-Value Based Theory of Subject-Specific Achievement Motivations

The instrument SATS, developed for the statistical domain, appears to behave well in other academic domains. Figure 4.3 contains six panels describing distributions of motivational scales in the two mathematics-oriented subjects, mathematics and statistics, and the two behavioural-based subjects, marketing and organizational theory. This classification, which will be addressed as hard vs soft subjects for brevity, proves to be meaningful, since hard subjects distinguish clearly from soft subjects in terms of less favourable students' motivations. Only learning effort does not distinguish that profoundly between hard and soft, be it that variation tends to be larger in hard subjects (see Fig. 4.3, last panel). In judging the boxplots, one should realize that students participating in this study are in an economics and business program, implying that soft subjects constitute their majors, and hard subjects only required service courses. Reliabilities, as depicted in Table 4.8, range between acceptable to good and do not demonstrate important subject effects, suggesting the instrument can be generalized beyond the statistical domain.

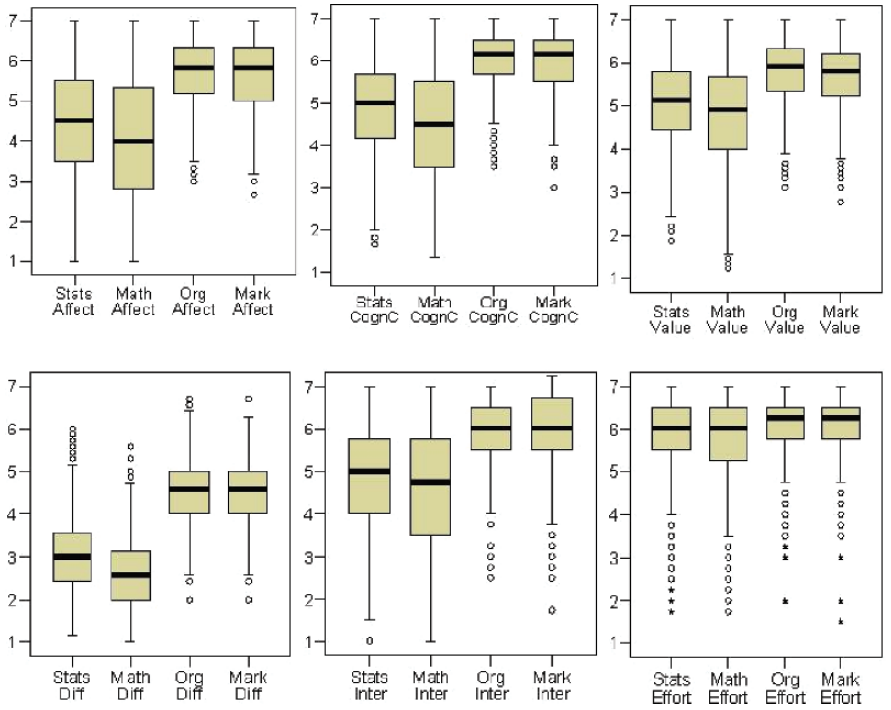

Fig. 4.3 Six panels describing the distribution of achievement motivations components Affect, Cognitive Competence, Value, lack of Difficulty, Interest, and Effort; each *panel* contains boxplots from the *left* to the *right* for the subjects statistics, mathematics, organizational theory, and marketing, respectively

Figure 4.4 graphs the measurement model of achievement motivations for the subject statistics. The most interesting part of this model is the correlation matrix of latent motivation factors.

Table 4.9 contains these correlations of all four academic subjects. Several issues come up.

The first issue is the effect of disentangling the broad task-value concept into three separate concepts: Affect, related to liking the subject; Value, related to the importance attached to the subject; and Interest. For all subject-matter areas, the

Table 4.8 Cronbach αs of Eccles' model based on achievement motivations in four academic subjects

	Mathematics	Statistics	Marketing	Organization
Affect	0.89	0.86	0.79	0.76
Cognitive Competence	0.89	0.85	0.80	0.78
Value	0.86	0.82	0.74	0.73
Difficulty (lack of)	0.68	0.73	0.60	0.60
Interest	0.88	0.84	0.84	0.82
Effort	0.73	0.75	0.71	0.73

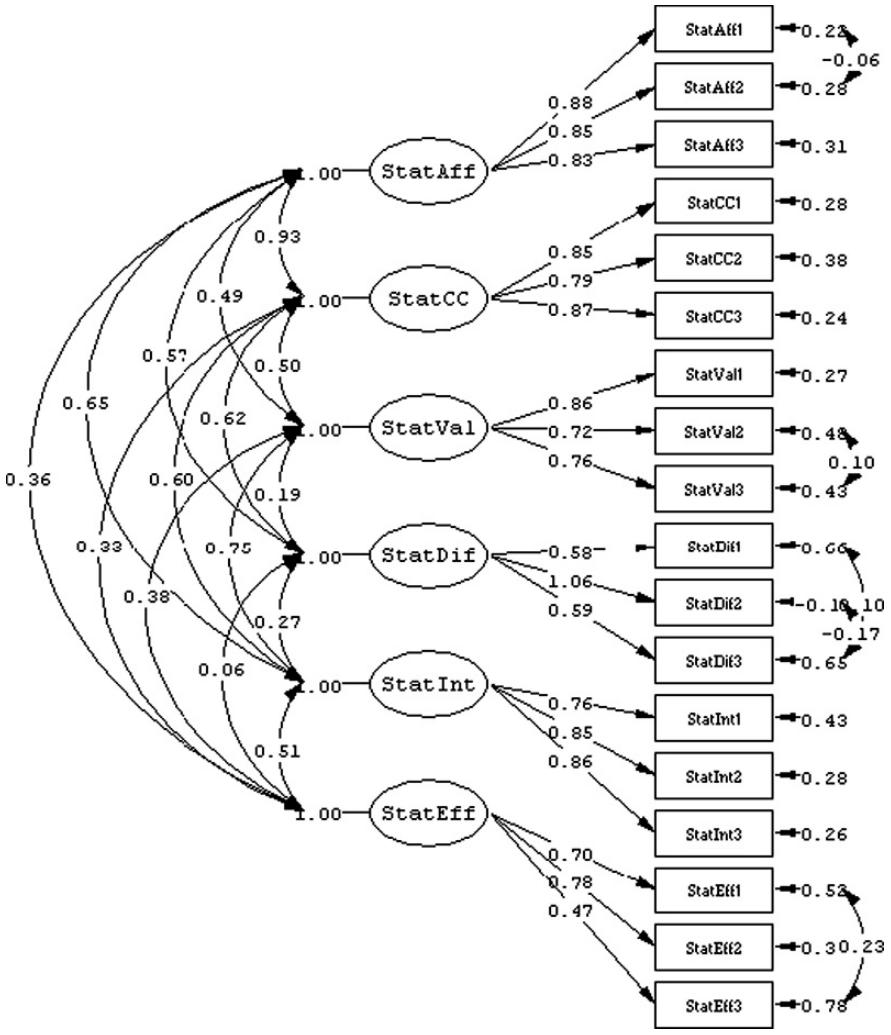

Fig. 4.4 Measurement model of achievement motivations based on Eccles' model in the subject statistics, with the *ovals* indicating the latent factors, the *rectangles* indicating the observations or indicators, the one-headed *arrows* between *ovals* and *rectangles* indicating the factor loadings, and the two-headed *arrows* indicating the trait correlation between latent factors on the *left-hand side* of the figure and covariances between indicators on the *right-hand side*

correlation between latent factors Affect, Value, and Interest is, relative to other correlations, modest, and nowhere the highest. This indicates that Affect, Value, and Interest are clearly empirically distinguishable constructs.

The second issue refers to the divide between mathematics-based and behavioural sciences based subjects: the hard vs soft subjects. For any given subject-matter area, the correlation between Value and (lack of perceived) Difficulty is weak, indicating

Table 4.9 Trait correlations between latent achievement motivations factors based on Eccles' measurement models of the four subjects; each cell contains four correlations, with those for mathematics and statistics in the first row and those for marketing and organizational theory in the second row; "−" indicates a correlation non-significant at the 5% level

	1	2	3	4	5	6
1. Affect	1.00					
2. Cognitive Competence	0.94/0.93/ 0.81/0.81	1.00				
3. Value	0.57/0.49/ 0.59/0.53	0.56/0.50/ 0.56/0.51	1.00			
4. Difficulty (lack of)	62/0.57/ 0.44/0.40	0.66/0.62/ 0.53/0.49	0.28/0.19/ −/−	1.00		
5. Interest	76/0.65/ 0.70/0.66	0.70/0.60/ 0.57/0.57	0.77/0.75/ 0.80/0.78	0.37/0.27/ −/−	1.00	
6. Effort	0.28/0.36/ 0.35/0.36	0.28/0.33/ 0.31/32	0.33/0.38/ 0.44/0.47	−/0.13/ −/−	0.44/0.51/ 0.49/58	1.00

that in all subject-matter areas the attached value is relatively independent of the lack of perceived difficulty. For the soft subject-matter areas, the correlation even completely vanishes: Value and Difficulty are independent in the statistical sense. For the hard subject-matter areas, there is still, be it very modest, a relationship between the two constructs. Those subjects are somewhat better valued by students who regard the subject-matter as attainable. A similar hard–soft divide is in the correlation between Interest and (lack of) Difficulty: being absent in soft subjects, this correlation has moderate positive values in the hard subjects.

A third issue refers to the correlation between Affect and Cognitive Competence. For all subject-matter areas, this is by far the largest correlation. This is in itself a remarkable fact: Affect is achieved by decomposing the task-value component into affective and utility-related factors, but from this analysis it appears that Affect is strongly related to the expectancy component Cognitive Competence than to Value. This once again confirms the usefulness of the affect inclusion in the expectancy-value model. In contrasting hard and soft subject-matter areas, it is evident that the correlation is much stronger in hard subject-matter areas than in soft. For hard subjects, we find an average correlation of 0.93. For soft subject-matter areas, liking the subject is more loosely coupled to the confidence in one's performance, than in hard subjects.

4.4.3 Structural Equation Models of Self-Theories, Achievement Motivations, and Course Performance

Integrating measurement models of both Dweck's model and Eccles' model gives rise to structural equation models depicted in Figs. 4.5 and 4.6 for subjects mathematics and organizational theory. Both models represent a broader category of models, since the model for statistics has equal structure as the model for mathematics, whereas the marketing model structurally coincides with regard to structure

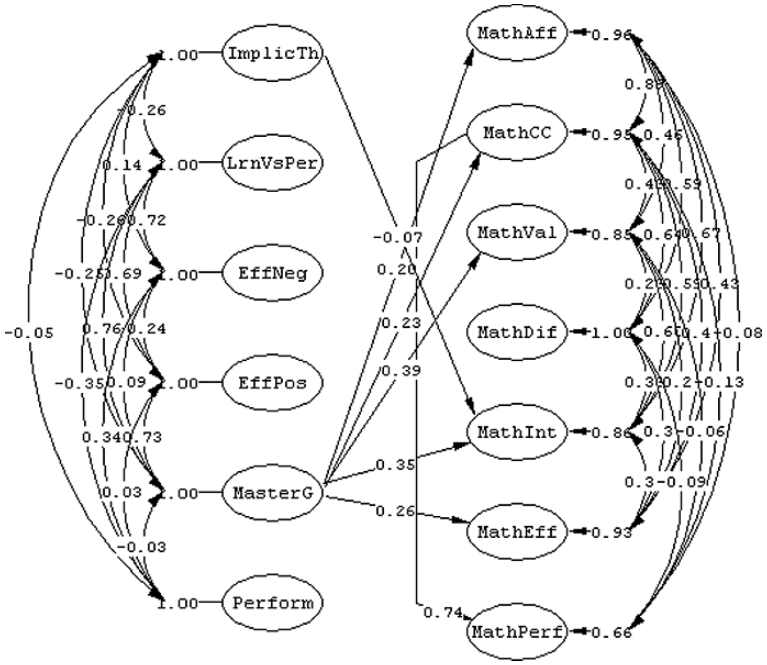

Fig. 4.5 Structural equation model of self-theories and achievement motivations related to mathematics, with the *ovals* indicating the latent factors, the one-headed *arrows* indicating the regression paths from the independent latent factors to the dependent latent factors, and the two-headed *arrows* indicating the trait correlations between the latent factors

with the organizational theory model. In both models, mastery goal orientation has a dominant effect on achievement motivations, above any other variable from the Dweck model. Only in the models of hard subjects, the variable implicit theory has a modest direct effect on Interest in these hard subjects.

The modest direct effects are, however, supplemented with indirect effects. Both the growth theory of intelligence and the fixed theory of intelligence are correlated with the mastery goal orientation, the first positively, the second negatively. As a result, the aggregated factor implicit theory, composed of all fixed theory items (positively scored) and all growth theory items (negatively scored), correlates modestly negative (−0.25) with the mastery goal orientation, causing an indirect path from self-theories to five of the six affective factors. Similar indirect paths exist for the non-validated constructs pitting the learning against the performance goal and viewing effort as positive. Their correlations with the mastery goal factor is much stronger, 0.76 and 0.73, respectively, creating further strong indirect paths between constructs from the Dweck model and constructs from the Eccles' model.

In the estimation of the structural equation models, the non-validated constructs from the Dweck model, learning vs performance goal, Effort as a positive thing, and Effort as a negative thing, were excluded from playing any role in predicting achievement motivations. However, the inclusion of these constructs in the

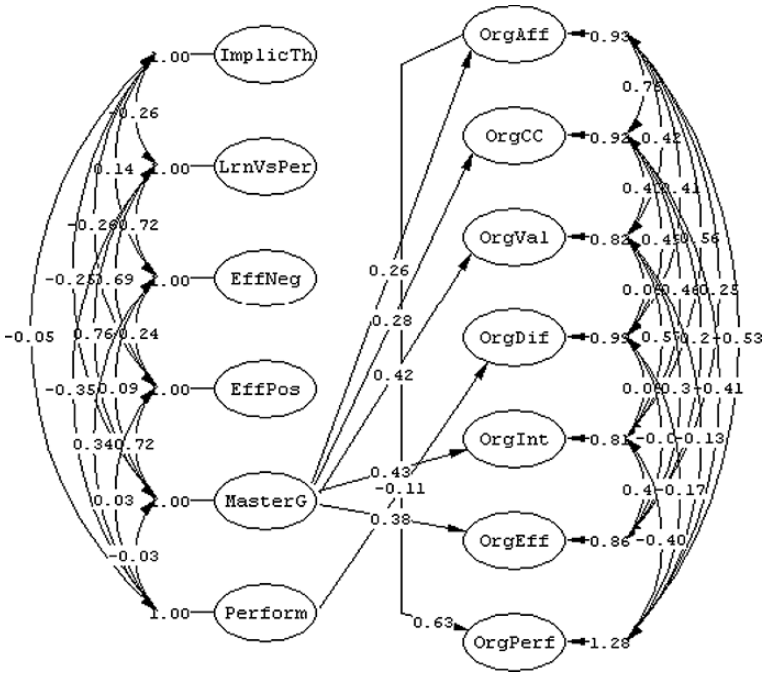

Fig. 4.6 Structural equation model of self-theories and achievement motivations related to organizational theory, with the *ovals* indicating the latent factors, the one-headed *arrows* indicating the regression paths from the independent latent factors to the dependent latent factors, and the two-headed *arrows* indicating the trait correlations between the latent factors

measurement part of the model allows judging their potential role in explaining achievement motivations by inspecting the values of their modification indices. All three constructs exhibit some large modification indices in the models explaining achievement motivations out of self-theories and goal orientations, indicating that beyond the dominant role of the construct of mastery goal orientation, additional variation might be explained by adding these self-theories based constructs. Modification indices demonstrate a regular pattern: Effort as a negative thing has most strongly a negative impact on the Affect construct in several academic subjects, whereas Effort as a positive thing has positive impact on primarily perceived Cognitive Competence in the subjects, and learning vs performance goal a positive impact on Value.

4.5 Conclusions and Implications

Empirical analyses of data generated within the context of the Dweck model provides conflicting outcomes. On one side, of all constructs described in Dweck (1999), only the construct implicit theory could be measured with acceptable

reliability. In contrast, learning vs performance goal, Effort as a positive thing, and Effort as a negative thing do not qualify as a reliable scale. However, strong modification indices suggest that these constructs might play an important role in explaining achievement motivations. Therefore, improving the measurement instrument in order to achieve improved statistical properties serves important educational goals.

Relationships between constructs in the self-theories model, and those in the achievement motivation model, are primarily through the mastery goal orientation factor. In that respect, there is no difference between the business subjects marketing and organizational theory and the methods subjects math and statistics. In all four courses, students high on mastery goal orientation are better motivated students, with regard to affect, self-perceived cognitive competence, valuing the subject, interest, and self-perceived learning efforts. The differences between the two types of subjects show up in other relationships. First, implicit theories predict interest in math and statistics, be it in a modest way: students high on the fixed view of intelligence and low on the growth view demonstrate lower levels of interest in math and statistics than students who are high on the growth view and low on the fixed view. No such relationship exists for the business subjects marketing and organizational theory. Apparently, there is a generic impact of self-theories on achievement motivations that is intermediated by mastery goal orientation and an additional direct impact on subject interest that is specific for the methods subjects.

Another difference in the two types of subjects is in the performance goal orientation. It does not have any influence in math and statistics, but does predict how difficult students perceive the business subjects. Performance goal oriented students perceive marketing and organizational theory as more difficult than other students; no such effect exists for math and statistics.

A last difference between the types of subjects is in the prediction of course performance. Achievement motivations are the best predictors of course performance, much better than views of intelligence. But what motivation best predicts performance again depends upon the type of subject. In math and statistics, it is the cognitive factor self-perceived competence that is the dominant predictor; given the substantial correlations between the several motivational factors, it pushes any other variable from the prediction equation. In the business subjects, the dominant predictor is an affective variable: affect for the subject. According to Table 4.9, cognitive competence and affect in math and statistics are so strongly correlated (0.94 and 0.93, respectively) that these factors are hardly discernible. That is not true for the business subjects; although the two constructs are stronger tied together than any other pair of constructs, the correlation (0.81 in both cases) is not that high to make the constructs more or less identical. This implies that raising the most important student achievement motivations as part of the educational process poses different demands for teachers in business subjects, than for those in methods subjects. Teachers in methods subjects cannot but focus on the closely intertwined complex of affective and cognitive factors, whereas in business subjects, affective factors are the prime clue to raise students' achievement motivations.

The lack of a (strong) direct relationship between students' self-theories on intelligence and achievement motivations and course performances is from a practical point of view reassuring. On the basis of research reports by Dweck and co-authors, different kinds of intervention programs have been developed to help students with a strong entity view to adopt more favourable self-theories. However, those views possess trait-like characteristics and are therefore hardly malleable, making those interventions a tough job. In contrast, student goal setting is known to be more variable and context dependent than views on intelligence and is therefore a more attractive target of any intervention program, given its crucial role in determining achievement motivations and course performance. In that respect the research findings reported in this study are unambiguous: in trying to foster more favourable learning attitudes, the focus should be on mastery goal setting, hoping for a gain in self-theories on intelligence as an indirect effect, rather than the other way around.

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Chapter 5
Self-Directed Learning Readiness, Individualism–Collectivism and Adult Student Learning in Online Environment: Development and Test of a Causal Model

Tim Hudson and Nagarajan Ramamoorthy

5.1 Introduction

Over the past few decades, distance learning as a training method has grown considerably. While distance learning has had different forms such as correspondence course, interactive television – the advent of technology – has enabled teaching institutions and individuals to engage in distance learning, notably online learning, as evidenced in the growth of online degrees. The education delivered through web-enabled technology has been an attractive aspect of obtaining education for adult learners who are full-time employees and/or have other commitments such as family obligations or engage in frequent travel. Given the asynchronous and flexible nature of learning it is of paramount importance to institutions and individuals to identify individual differences relating to the learning that may help or hamper their learning process.

Adult learners have a deep desire to direct their own learning or learning is motivated by a pre-existing need or both. Both self-directed learning and individualism orientation may influence learning preferences and outcomes. Self-directed learning refers to the degree to which an individual prefers to be independent and directs his/her own learning. Self-directed learning readiness (SDLR) has been shown to be related to a variety of learning outcomes such as performance, creativity, life satisfaction, information sharing, training design, matching training style with learning style, to name a few.

Additionally, cultural orientations may also play an important role in the SDLR of learners. However, differences in cultural orientations to SDLR have not been adequately explored (Bailey, Chen, & Dou, 1997). Individualism–collectivism (I/C) orientation (Hofstede, 1980) may be one such variable that may influence the

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learning preferences and learning outcomes of any management education. Guglielmino and Guglielmino (2006), based on a study of five countries, reported that individualism orientation correlated positively with SDLR wherein individuals take responsibility for their learning.

In the present study, drawing upon the literature on I/C and SDLR, we develop and test a causal model of learning preferences and learning outcomes using part-time MBA students enrolled in an online class. We chose online classes as prior research (e.g., Bernardin, 2007) indicates that e-learning or online learning is heavily dependent on SDLR. The sample for our study comes from the population of adult learners.

5.2 Literature Review and Model Development

5.2.1 Self-Directed Learning and Learning Processes

Self-directed learning (SDL) may be conceptualized as the degree or extent to which an individual, usually the trainee or learner, controls his/her own learning. SDL differs from traditional learning in that the locus of control is with the learner and not the instructor although the instructor can act as a resource person to facilitate the learning process. Both independent projects and e-learning are instructional methods that would complement the SDL (Bernardin, 2007). Prior studies (e.g., Artis & Harris, 2007; Ellis, 2007) indicate that adult learners are more likely to be self-directed learners. Specifically, adult learners are more motivated to learn as pursuit of learning arises out of a pre-existing need or intellectual curiosity. Typically, SDL readiness has been measured using a 58-item survey questionnaire developed by Guglielmino and Guglielmino (1991) although a shorter version of the same scale using 20 items has been used in studies with good psychometric properties. Self-directed learning readiness (SDLR) has been shown to be related to a variety of learning outcomes such as performance (Guglielmino & Guglielmino, 1991), creativity (Torrance & Mourad, 1978), life satisfaction (Sabbaghian, 1979), information sharing (Beitler & Mitlacher, 2007), training design (Lowe & Holton, 2005), matching training style with learning style (Robotham, 1995), to name a few. SDLR also seems to be appropriate for flexible and asynchronous learning that might occur in online learning environment. In light of the above, we propose that

Hypothesis 1a: Self-directed learning readiness will be positively associated with course performance.

Hypothesis 1b: Self-directed learning readiness will be positively associated with learner interactions.

5.2.2 Individualism–Collectivism and Learning Processes

Hofstede (1980) introduced individualism–collectivism as a cultural-level construct to the literature on cross-cultural management. Individualism refers to an orientation

toward self as an autonomous individual bounded by one's own skin whereas collectivism refers to an orientation toward self as embedded in a broader network of social entity (Wagner, 1995). Although Hofstede (1980) introduced I/C as a cultural-level, dichotomous, and bipolar construct, recent studies (e.g., Ramamoorthy & Carroll, 1998; Ramamoorthy & Flood, 2004; Ramamoorthy, Gupta, Sardessai, & Flood, 2005; Ramamoorthy, Kulkarni, Gupta, & Flood, 2007; Wagner, 1995) have used I/C as an individual difference variable and have studied a variety of outcomes to such as preferences for individual versus group work, variety of human resource management practices and organizational outcomes such as tenure intent and organizational commitment. These studies have also treated I/C as two ends of the same continuum.

Specifically, individualism orientation has been shown to be related to a strong preference for independence, self-reliance, competition, and working individually; on the contrary, collectivism orientation has been shown to be related to a strong preference for interdependence, reliance on the society, cooperation, and a strong preference for working in a group (Ramamoorthy & Carroll, 1998). Given these differences, it would be reasonable to expect that a higher level of individualism orientation might result in a preference for working individually as opposed to working on a group project whereas collectivism orientation might result in a stronger preference for working in teams than individually. Thus, a preference for working in a group versus individual project may also impact the group performance. Specifically, a higher preference for working in a group may enhance group performance and a lower preference for working in a group may adversely affect group performance. Hence, we propose that

H2a: A higher level of individualism orientation will be negatively associated with a preference for group learning.
H2b: A preference for group learning will be positively associated with the performance of the group.
H2c: A higher level of individualism orientation will be positively associated with course performance.

5.2.3 Learner Interactions and Learning Outcome

In the design of online classes, time- and space-independent design of the course itself do not make them superior to traditional classes. Of more importance to the learning experience is the design of programs that offer possibilities for interaction and collaboration among students. Learner interaction creates a process and sets the parameters for active learning on the part of the learners. Jung, Choi, Lim, and Leem (2002) suggest that three types of interactions – academic, collaborative, and social – influence learning, satisfaction, participation and attitude toward online classes. While academic interaction refers to interactions between the learner and the academic materials, collaborative interaction refers to interactions among the learners in solving a problem or issue at hand. Social interaction refers to the

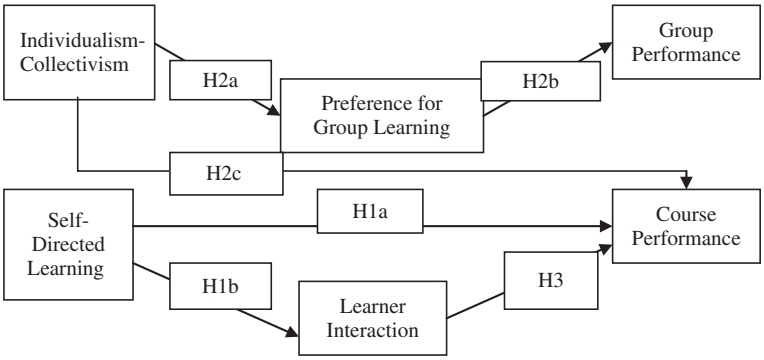

Fig. 5.1 A causal model of individual differences and learning outcomes in an online environment

effort by the instructor to promote social integration among the learners and the instructor. An interactive learning process is more engaging of the learners, and studies (Bernardin, 2007) have shown that active learning results in more favorable learning outcomes and performance. Active learning also creates a sense of ownership for learning goals among the learners (Savery & Duffy, 1995). The quality and the integrity of the educational process depend upon sustained, multi-way communication. Without such connectivity, online learning may degenerate into the old correspondence course. Thus, we have reason to believe that learner interaction will positively impact learner outcomes. Hence, we hypothesize that

H3: A higher level of learner interaction will positively affect the course performance.

In summary, the various hypotheses proposed in our causal model relating individual differences to learning outcomes are given below (Fig. 5.1).

5.3 Method

5.3.1 Overview

We chose three sections of an online MBA class taught by the same instructor for inclusion in the study. Participation in the study was voluntary. We used a survey methodology to collect data from the participants on their demographics, I/C orientations, preference for group learning, and self-directed learning readiness. Learner interaction was gathered from the summary data provided on each student from their WebCT class. We collected data from the instructor on the course grade and the grade on their group project.

5.3.2 Sample

Of the 89 students enrolled in the three sections, 74 students 74 completed the survey for a response rate of 83.15%. The participants came from a wide variety of demo-

graphics with 29 Caucasians, 14 African-Americans, 11 Hispanics, 18 Asian-Pacific Islanders and 1 Native American with one missing data. Fifty-one respondents had Bachelor degrees and 23 of them had master's degree. The sample consisted of 33 male (44.59%) and 41 female (55.41%) participants with an average full-time work experience of 9.25 years and an average part-time work experience of 2.90 years. We measured age using the following scale: 1 = 18–25; 2 = 26–35; 3 = 36–45; 4 = 45–55; and 5 = 56 or older. Fifty-six respondents (75.68%) were in the age bracket of 26–45; 14 (18.92%) of them were in the age group of 18–25; and 4 (5.40%) of the respondents were in the age group of more than 46. Fifty-eight of the respondents (78.38%) reported their salary as in excess of US $35,000 and 11 respondents (14.86%) reported their salary as less than US $35,000 with 5 (6.76%) missing data. Thus, our sample is adequately representative of adult learners.

5.3.3 Measures

We measured SDLR using a 20-item short form of SDLR questionnaire developed by Guglielmino & Guglielmino (1991). The coefficient alpha for this SDLR scale was 0.76. Data coding was done in such a way that a higher score on the SDLR variable indicated a higher level of self-directed learning readiness. We measured IC orientations of individuals using the 19-item scale used by Wagner (1995) and subsequently validated by Ramamoorthy and Carroll (1998). The coefficient alpha for this IC scale was 0.71. Data coding was done in such a way that a higher score on the I/C variable indicated a higher level of individualism and a lower score indicated a higher level of collectivism. We operationalized learner interaction as the number of sessions the learners engaged in class discussions, the number of discussion postings they contributed, and the number of discussion postings they read. A factor analysis of these three in-class activities indicated that these three indicators loaded on a single factor and hence, we combined these three indicators as a single underlying latent variable (the mean of the factor scores on these three indicators) and termed it as learner interaction. A higher score on learner interaction indicated a higher level of collaborative learning effort in the class. We measured the learners' preference for group versus individual learning activity by asking the respondents to indicate their most enjoyable class activity – individual project, exams, and group projects. If the most enjoyable activity was class discussions or group projects, we coded the preference for group learning as 1. If the most enjoyable activity was exams or individual project, preference for group learning activity was coded as 0.

5.3.4 Data Analyses Strategy

We used path analysis to test the causal model of the relationships between variables as suggested by Pedhazur (1982). A path coefficient from a predictor to an outcome variable is the standardized regression coefficient controlling for other predictors in the equation. Of the three demographic variables collected in this study (age, gender,

and race) age was significantly correlated with some of the variables used in the study and hence, age was used as a control variable in deriving the path coefficients. We tested for the significance of the path coefficients using the one-tailed *t*-test.

5.4 Results

Table 5.1 presents the means, standard deviations, and correlations among the variables used in this study.

Figure 5.2 presents the results of the path analyses.

Table 5.1 Means, standard deviations, and correlations

Variables	Mean	σ	1	2	3	4	5	6
Age	2.22	0.92						
Preference for group learning	0.75	0.43	0.21*					
Learner interaction	0.00	1.0	0.24*	−0.07				
I/C orientations	2.69	0.39	−0.07	−0.22*	0.07			
SDLR	3.88	0.37	0.02	−0.07	0.22*	−0.31***		
Course performance	90.10	4.58	0.17*	−0.10	0.35***	0.10	0.39***	
Group performance	93.42	3.26	0.02	0.23*	−0.04	−0.12	0.23*	0.06

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

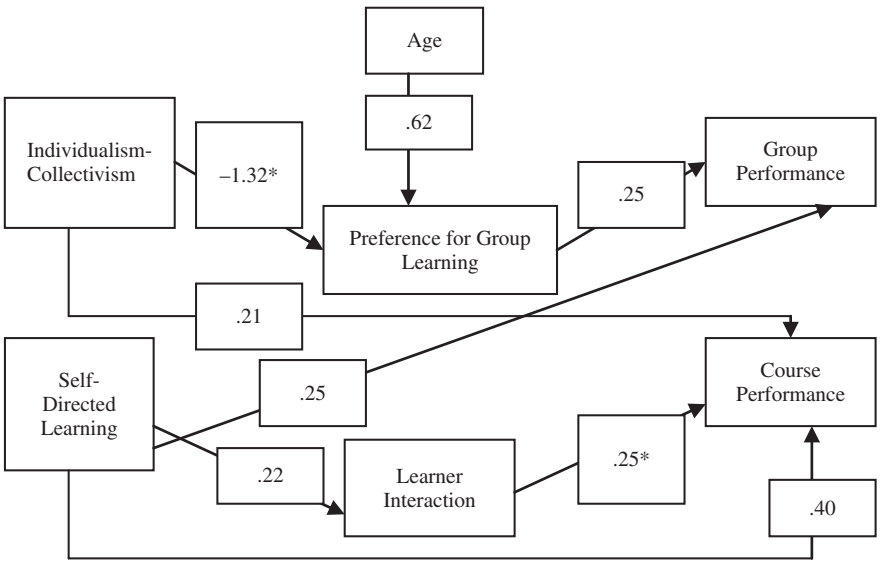

Fig. 5.2 The effect of I/C and self-directed learning on online class performance

As hypothesized, the results indicated that SDLR was positively related to course performance in such a way that a higher level of self-directed learning readiness results in positive learning outcomes. Thus, H1a was supported. Further, learner interaction partially mediated the relationship between self-directed learning readiness and course performance. That is, SDLR had a positive effect on learning readiness (H1b) and learning readiness had a positive effect on course performance (H3), a measure of learning outcome. Although not hypothesized, we found that SDLR also had a direct, positive effect on group performance.

As hypothesized, results indicated that I/C orientations negatively influenced preference for group learning. That is, individuals with a higher level of individualism orientation preferred to work alone than in a group. Further, a preference for group learning positively affected the group performance. Thus, preference for group learning seems to completely mediate the relationship between I/C orientations and group performance. Further, individualism orientation also had a direct effect on course performance meaning individuals with a higher level of individualism tended to perform better in the course. Thus, H2a, H2b, and H2c were all supported.

Finally, individualism orientation was negatively related to SDLR, contrary to the results reported by Guglielmino and Guglielmino (2006). Guglielmino and Guglielmino (2006) used I/C at the cultural level rather than at the individual level as used in our study. Thus, the different levels of analyses may have contributed to the different findings.

5.5 Discussions and Conclusion

Our study was aimed at developing a causal model relating individual differences to learning outcomes through the mediating variables of learner interactions and preferences for group learning. Both SDLR and I/C orientations seem to affect learning outcomes. While I/C orientations influenced group performance through the intervening variable of preference for group learning, SDLR influenced learning outcomes both directly and through the intervening variable of learner interactions.

The issue of matching pedagogical techniques to learner differences has been an issue of debate for several years now. Most notably, in organizational contexts, research has shown that individualism versus collectivism orientations has different implications for the design of tasks – designing tasks around individuals versus groups (Ramamoorthy & Flood, 2004). The present study demonstrated that even in the design of training programs, trainers or instructors should attempt to match individual differences on I/C orientations with the pedagogical techniques – individual versus group learning techniques. Or at least, the designer should be aware of the potential negative outcomes of matching individualistically oriented individuals with a group-based learning technique (or vice versa) which may not have the desired learning outcomes.

The second major implication arises out of the role of SDLR in influencing the instructional design and also the learning outcomes. SDLR has positive effects on

learning outcomes, not a surprising result. However, what to do with individuals with a lower level of SDLR? Their motivation and readiness may not make them engaged in the learning process resulting in not getting the maximum benefits out of the training. Perhaps, regular feedback by the trainer and/or peers might help them. Future studies may perhaps look at the effects of feedback on learning outcomes and integrate it into the model.

In the present study, we examined only the collaborative interactions – interactions among the learners to solve a problem or issue – in the form of case discussions. We used the frequency of interactions as a proxy for the overall interactions among learners as this measure was readily available. Further, the correlations and expected results in the predicted directions suggest that this unobtrusive measure may well serve as an indicator of collaborative interactions among the learners in the learning process. Future studies must also examine whether the model that we proposed would hold good for other types of interactions such as academic and social interactions.

In conclusion, we should note some of the limitations of our study. First, we used cross-sectional data and hence, we cannot rule out response bias and/or method bias. However, we do not see this as a major problem since we used multi-source data for the various measures. Since the instructor, the trainees, and the use of log of WebCT provided data, any potential common method bias must be minimal. Second, in order to control for instructor effects, we used three different sections of the same instructor. While this may enhance the internal validity of the study, variations in the instructional techniques that are instructor-dependent are not available for multiple instructors. For instance, what might happen to the relationships observed in the study if different instructors rely on learner interactions as a pedagogical method to varying degrees with some excessively relying on lectures (no learner interactions) versus others who might rely on active learning techniques? Will differences in SDLR and I/C have the same relationships in these different settings? Future studies should expand our model to multiple instructors/multiple sections to validate our findings. Third, although our sample is diverse, it came from a single national culture, namely the United States. Thus, the variance on I/C may be somewhat restricted yet the variable was a significant predictor in the model. Although Hofstede suggested that I/C was a cultural-level variable that distinguishes cultures using an ecological factor analysis, other studies (e.g., Ramamoorthy & Carroll, 1998; Ramamoorthy & Flood, 2004) have shown that it is equally viable to use I/C as an individual difference variable. Further, several studies (e.g., Ramamoorthy et al., 2005, 2007) that compared samples from India, Ireland, and the United States indicated that Indians were more collectivistic in certain dimensions of I/C compared to Irish and the US sample. Hence, they suggested that it would be inappropriate to use nationality as a surrogate for I/C and called for studies that systematically measured I/C at the individual level. Our study is one such attempt and future studies should attempt to replicate the study using a sample from diverse cultures by systematically measuring this variable.

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Chapter 6
Reflections on Reflections: The Use of Logs in Student Work Placement to Support Business Learning

Tim Friesner and Adam Palmer

6.1 Introduction

This chapter is based on the analysis of student learning logs. Thirty student logs are analysed from an original total of in excess of 60 completed logs submitted over a 4-year period. A phenomenological approach using an ethnographic content analysis (Delamont, 2002) to identify "repeated ideas" (Auerbach & Silverstein, 2003) is applied to the learning logs completed on work placement. The students' experiential learning, the classic "concrete" experience (Kolb, 1984), was shown to be enhanced by the knowledge and understanding derived from the act of developing their own narrative based on a real business context. It is suggested that this supports the students in what Ramsey (2005) has identified as learning in performance.

It will be of interest to academic and business colleagues who wish to maximise the development of students to achieve their career goals and meet the needs of employers. It uses reflections on practice to build new frameworks for further development. Its limitations are that by its nature this type of investigation represents the situations as the participants and the researchers see them. The implications of the research are that it offers a model of practice in supporting and assessing learning on work placement that can be developed, modified or improved. This chapter brings together a range of well-established concepts in reflective practice and self-managed learning to connect business education with business practices.

6.2 Learning from Work Placement

A recent report carried out for the Higher Education Funding Council of the United Kingdom by Brennan and Little (2006) highlights the challenges for universities of integrating learning in universities with learning in the workplace. Other research focused on the learning derived from work placements by Little and Harvey (2006)

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shows a range of reactions of students to questions about their experiences and to what extent they have impacted on their future learning. This chapter makes a slightly different but related contribution in offering a model facilitating and capturing the learning on placement as it occurs so that students can reflect on their experience in real time. The learning log approach used is supported by a conceptual framework based on communities of practice literature. In this model supporting students in their reflective writing is an essential teaching skill. Business and management university tutors tend to be more familiar with supporting students with traditional forms of assessment such as essays, examinations and reports. This chapter suggests an approach to structuring writing and supporting high-quality reflection through an assessed learning log. This model for structuring learning logs is shown to support the students' learning from business placement whilst acknowledging that the analysis of logs indicates further refinements are needed to encourage deeper reflection.

Tutors are enabled through the approach developed to confidently deliver, support and feed back on reflective assessments. The research that underpins this chapter has identified eight themes of reflection that can be used to advise students on how they can work to improve their reflective writing. This chapter importantly contextualises these reflective themes in relation to current knowledge on reflective writing. Practically this means tutors can offer informed and structured feedback to students on reflective assessments such as learning logs before, during and after their completion.

Students will have a clearer view of what is expected of them when they write reflections. They will have an appreciation of what makes one reflective piece of work more robust than another, and therefore will be able to improve and develop their individual approach to learning and reflection. Practically this means learning logs that record reflection can be evaluated based upon best practice themes.

Employers benefit whilst the student is placed with them since they are proactively guided by the university on how to evaluate their experiences reflectively to improve what they do in the workplace. Ultimately when the student becomes an employee the individual is already experienced in using reflection as a tool to support their continuing personal and professional development.

This chapter evaluates current knowledge on reflection and learning logs and reports on a live learning and teaching project at the University of Chichester. The project involved more than 60 employers and undergraduate students undertaking a work-based double-weighted level 3 module. Researchers had access to 60 learning logs which were examined to establish what constituted a highly graded piece of work. Each one was 7000 words long. The outcome is the tutors' own narrative of the students' perceptions of work-based learning (WBL), and this narrative formed the basis of the eight themes of reflection proposed. Finally the authors began to look at the ways in which students could be encouraged to tell their reflective stories in different ways, using an approach advocated by Ramsey (2005) examining the desirability of recognising the social dimension of reflection in order to develop the capacity to act in the real world.

6.3 Why Use Learning Logs?

The use of learning logs in supporting teacher and nursing education in the UK is well established and widespread. Indeed Schön (1987) identified these professions as typical of those that require applying technical or theoretical knowledge to resolving the more ambiguous and messy challenges in their everyday work. Their application in business education appears less widespread, particularly as an assessment tool. Oldham and Henderson (2003) provide an account of the use of reflective journals for partial assessment of an MBA module with a well-developed rationale for their use based on established models and concepts of learning. The rationale for the approach at Chichester has similarities.

Providing the opportunity for final year students to express their learning from their experiences on work placement through an assessed learning log module is underpinned by a number of well-established concepts, models and ideas about learning. Many of these have been brought together in the work of Jenny Moon (1999) on the value of reflection and the use of learning journals to demonstrate development to higher levels of learning. To successfully complete the final year of an undergraduate degree programme requires that students demonstrate such attributes as critical thinking and independent learning. In a business placement the students will be expected to develop their practice through tasks allocated to them to the satisfaction of their employer. The dimensions of practice and theory are therefore brought together in a way that has potential to make links between business education and business practice.

There are persuasive arguments for using logs for developing learning as they may provide a vehicle for demonstrating a range of student outcomes that are inherently important to success in a business practice. The essential ingredient is that they emphasise the role of reflection in recording learning (Friesner, 2008) and are designed in a way that takes the students through stages of learning from merely noting events, through reflection to transformative learning (Moon, 1999). This process is well established in the work of proponents of experiential learning such as Dewey (1938), Piaget (1970), Lewin (1951) and Kolb (1984).

A further set of related concepts within the area of reflective practice also has potential for expression through learning logs. Schön (1987) identified the gap between academic theory and theory in use (practice), it is the intention that learning log completion may help to close this. He also distinguished between reflection in action and reflection on action. A log can be designed to encourage students to record how they act using their tacit knowledge and later reprise an experience with a reflective evaluation of what happened using academic resources. Accompanying this is the possibility of encouraging double loop learning (Argyris & Schön, 1974), where students may begin to examine and question the organisation processes and norms that produce issues at work. Writing about their experiences and learning encourages the valuable process of internal dialogue with themselves or reflexivity.

The importance of situatedness in enhancing learning has been emphasised by Lave and Wenger (1991). Students are engaged in situated learning (Collins & Duguid, 1989 in Cohen, Manion, & Morrison, 2000) by learning in the workplace

about the workplace. The placement provides a context for students in which to put their previous, present and future learning whilst being part of a community of practice. This learning can build their confidence to use their initiative as they become accepted in their workplace. By being in a situation where they can see the consequences of their actions they come to "know" in social situations as well as have knowledge, depicted by Shotter (1993) quoted in Reason and Bradbury (2000) as knowing of the third kind.

Formative assessment using learning logs supports students in the potentially difficult phase of establishing their entry into what Lave and Wenger (1991) identify as a "legitimate peripheral practice". The learning log approach could be argued to be a way of counteracting some of the criticisms of communities of practice as sites of effective learning. Business placements as vehicles for learning can be experienced or perceived by students as bewildering, unfriendly and disjointed compared with the relative supportive and packaged nature of a university course. This is reflective of the concerns raised by Lave and Wenger (1991). The model of supporting students through online dialogue with tutors through the logs is suggested as a preventive measure that identifies problems at an early stage.

There is also a sense in which the learning logs reflect changing practice in the approach that universities take to fulfilling their role in society. The sometimes contentious discussion around the need for universities to be producers of "mode 2 knowledge" has its roots in science. Gibbons et al. (1994), proponents of mode 2 knowledge, argue the importance of practice and its integration with theory; in this case the production of knowledge application and theory interact such that applied research can challenge and change established theory. Harrison and Leitch (2005) is just one example that demonstrates how management researchers have embraced the notion that theory and practice should be interlinked; management is not therefore a set of generalised principles. The learning logs framework detailed in Section 6.3 below is designed as a vehicle through which students can evaluate connections between theory and practice.

6.3.1 The Learning Log Module at the University of Chichester

Learning logs have been used as a development and assessment tool on the BA (Hons) Business Management programmes for 4 years. The students complete this module in parallel with a 10-week work placement and their final year project module. The learning log contributes to 25% of their final year marks as it is worth 30 credits. The students are required to submit the equivalent of 7000 words; a guide to the tasks involved is shown in Appendix 1.

The purpose of the learning log is to enable and encourage students to reflect upon the learning from their course and their personal development process. The log format is designed to help students illustrate how the learning process has developed different ways of thinking and styles of working over the period of the work placement. The learning outcomes sought from completing the log are students will

have an appreciation of the placement organisation, its management and the changing business environment in which it operates; have acquired skills of reflection, independent learning and personal development planning (PDP); be prepared for, or develop further, a career in business and management.

Although originally conceived as a paper-based exercise the log is now completed online and supported by tutors responding to student entries online (Friesner, 2008). The assessment criteria for the completed log indicate the key areas of development sought (see Appendix 2). Ideally the learning log completion should be supporting deep reflection, learning to learn, independent learning, new insights, critical thinking and an understanding of how others see them.

To support students in completing their logs a comprehensive handbook is issued to them in the term before they commence their business placement. Three introductory workshops are provided to familiarise them with its objectives, contents and usage. The handbook guides them through a process of pre-placement reflections, personal audits of their skills, setting personal objectives, logging of critical incidents and actions and final reflections on the placement. The assessment criteria also provide guidance for demonstrating their learning before, during and after the placement.

Some key extracts from the module handbook are provided here to show how the learning process is engendered at each stage. Students begin by reflecting upon their life experiences so far. This gets them into the logging habit and provides an early opportunity for tutors to feedback online. They progress on to conduct some personal audits which provide the foundation for the setting of SMART objectives in dialogue with tutors. Students then undertake 7000 words of reflection which are supported by prescribed assessment criteria.

- Pre-placement Reflection: As you begin your placement, you need to write a pre-placement reflection. Try to address some of the following questions to get you started:

  What is your previous experience of work?
  What do you expect to gain from WBL? (WBL is work-based learning)
  Do you have any reservations as you begin?
  How will work placement enhance your career options?
  How does the WBL link with your personal development planning?
  What is the best thing that could result from WBL?
  How does WBL link with the learning from your degree so far? Figure 6.1
- Personal Audits: In order to get to SMART objectives, you will need to conduct an audit of your personal skills. Try to answer the question, where am I now?
- Traffic Lights: In your professional and/or personal life, what needs to be stopped and changed? (Red Light) What would work better if it were improved in some way? (Amber Light) What works well and can carry on unchanged? (Green Light). With traffic lights you should conduct this exercise on your own, but it is also important that you ask those around you for their perceptions – so ask you manager/mentor, colleagues, employees, friends, family or team mates to conduct the same exercise. Gather the data and use it to help you decide upon

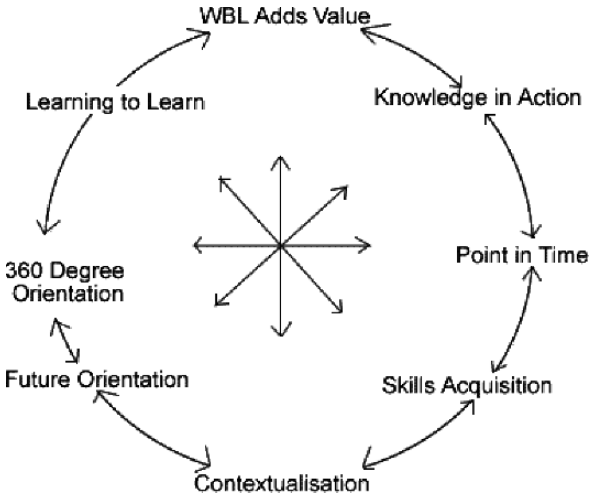

Fig. 6.1 The eight themes of refection and learning logs for business and management work-based learning

SMART goals. You could then go on to conduct a SWOT analysis. Include it as evidence within your learning log.

- SWOT Analysis: What are my personal strengths, weaknesses, opportunities and threats? Explain them and support them with examples. Make the SWOT as detailed and comprehensive as you can. Then rank and prioritise them. Look for opportunities to develop skills that address a personal weakness or enhance a personal strength whilst at work. Involve your employer or mentor and take some feedback. Include this exercise as evidence within your learning log.

Other audits could be included such as time management audits, learning styles surveys, Belbin tests and any others that you may feel are useful to you.

Some basic guidance for students on how to conduct a personal audit:

- SMART objectives: Below are some examples of SMART objectives and suggested learning log topics. It is best for you to *decide upon your own objectives*, so don't rely solely on the examples below.

The objectives are the cornerstone of the learning log. Discuss them with your tutor, mentor or manager. Try to set them within the first couple of weeks of WBL.

Some basic advice for students on setting personal objectives

- Assessment Criteria: A coherent summary of the work placement role and how it relates to the Management Project.
  An appreciation of one's own areas for personal development, and SMART objectives to improve them.

A series of reflective logs, summarising actions to achieve objectives and levels of success or failure. Students should also demonstrate critical thinking and problem solving skills in logs.
Students should demonstrate not only learning, but also new skills of learning to learn.

Examples of assessment criteria for WBL

6.3.2 A Theoretical Narrative of Students' Perceptions of Work-Based Learning (WBL)

The purpose of the short research exercise was to investigate the students' perceptions of work-based learning (WBL) as it came to an end. The researchers were interested in the individual narrative accounts that the summative reflections contained, so that an overall theoretical narrative could be developed.

Between January 2007 and March 2008 local and national employers offered around 50 full-time student work placements for a 10-week continuous period, which were assessed using reflective diaries or "learning logs". The learning logs had a prescribed format. Students wrote a total of 7000 words each that consisted of 1000 words pre-placement reflection, 5000 words of reflective learning log entries and 1000 words of post-placement reflection. The post-placement reflection was of most interest to the researchers since it allowed students to write a narrative overview of their personal experiences at work. The post-placement reflections of 30 learning logs were re-read from two cohorts totalling in excess of 60 students. The mode of analysis applied a mechanical, step-by-step approach in order to establish repeating ideas (Auerbach & Silverstein, 2003). It was recognised that the narrative that emerged would have been influenced by the prescribed learning outcomes of this double-weighted module. However, this limitation would occur with the analysis of any student project work for which marks had been awarded and hopefully would not affect the post-placement reflections to any great detriment.

It was taken into consideration that social phenomena develop in social contexts. Therefore, work-based learning (WBL) and in fact "going to work" is a concept or practice which may appear totally natural to students as they undertake placements, but in reality much of what actually occurs is directly influenced by our own Western culture, our individual work ethic and our attitude to work. So the purpose of this small research study was not only to investigate the students' perceptions of work-based learning (WBL) as it came to an end, but also to appreciate that the focus of social constructivism is to uncover the ways in which individuals and groups participate in the construction of their own reality, i.e. the perception of the students of the experiences that they had undergone as they ended their WBL. Learning logs are a suitable vehicle for collecting data that record reflection on experience, and hence captured the narrative.

The process of the narrative analysis was structured. The raw text of the learning logs was read in its entirety and relevant text was highlighted. Repeating ideas

were grouped together from passages of the final reflections submitted by students. Themes were then organised by grouping repeating ideas into coherent categories. Finally theoretical constructs were developed by grouping themes into more abstract concepts, in line with the framework that was emerging. A theoretical narrative retelling of a collective story of each student's journey through WBL was created. Again the approach is closely based upon the *repeating ideas* of Auerbach and Silverstein (2003)

6.4 Findings

Once the students had completed the 10-week WBL, they expressed that work placement had added value to their learning experience, with most SMART objectives having been achieved, new skills developed and on occasion jobs or promotions being offered to participants (WBL ADDS VALUE).

> *Placement provided me with a work experience I will always remember. I was able to adapt what I learned in the University in the business life. For example: summarising findings, telephone and face-to-face interviews.*

Students had gained a valuable insight into organisations, how they were managed and how they operated in ever-changing business environments (KNOWLEDGE INTO ACTION).

> *I believe I have gained valuable experience of working in a business environment gaining a good understanding of the organisation, its management and the changing environment in which it operates.*
>
> *This placement gave me some new skills and improved my already existing ones.*

Students often reflected upon their pre-placement reflection which had been undertaken as the WBL period kicked-off, whereby they recorded early hopes and fears. In most cases, once the work placement period had ended these hopes had often been realised and situations engendering fears had not been encountered. Initial difficulty in setting objectives for new skills development and then actually going on to realise them had been less of a problem than they had first anticipated. Hence looking back, things had turned out positively (POINT IN TIME).

> The greatest gain from my studies is to verify that I am more capable than I realise, and by being proactive, I am more excited than afraid of new experiences.

Students reflected upon the skills that they had acquired, both purposefully and as an indirect result of simply moving from the classroom to the workplace. For example one student reported that she had become proficient in the use of Microsoft Project, and as a result of the learning experiences encountered, she also expressed pleasure that she had become more self-confident, her reflective writing skills had improved, she had acquired the personal development planning (PDP) bug and she had become a more independent learner (SKILLS ACQUISITION).

> Skills include reflection, personal development planning, independent learning, knowledge of Microsoft Project software, which will help me a great deal with my Project Co-ordinator role and anchoring techniques.

Some students used additional resources to support their learning including audits and surveys for learning styles (Kolb, 1999) and Team Roles Inventory (Belbin, 1981), as well as material from journals and other reputable published sources (CONTEXTUALISATION).

> What has transpired has been much more than my original objectives, and has proved to be probably the most important part of my degree.

There was an appreciation that having arrived at the end of a short 10-week period of time, learners had only offered a snapshot of their experiential learning. Many extrapolated their learning and development goals into the future as a purposeful PDP, but more often as a vision of the type of roles through which they envisaged their career would progress and the immanent and continuing need to develop skills (FUTURE ORIENTATION).

> Now I understand the learning process, I only hope I can continue to improve my ability to learn and am looking forward to the future.
>
> In the future I will identify additional skills improvement needed for a project or larger task and build in research and reading into my time to draw on wider knowledge rather than just using my own experience.

A catalyst for reflective writing and WBL was the feedback of others to the learner. The source of the feedback varied and examples included tutors, employers, line-managers, mentors, co-workers, other learners, members of the learner's family and trusted friends. The feedback of others worked in two ways. Often it served to alleviate fears that the student had in the workplace; for example one student recorded that she felt that a meeting she should have led had been unsuccessful, whereby the feedback from her mentor was overwhelmingly positive. Second, it served as an intervention if things were not progressing as planned and where action was needed to keep the WBL on track (360-DEGREE ORIENTATION).

> Although I feel I have made positive strides forward, from the variable feedback I received, I cannot demonstrate a significant positive improvement in my first objective on my communications and relationships.
>
> Throughout my reflections over the past ten weeks, I have tried to view my experiences through others' eyes and how my actions may have affected them.

A minority of students reflected upon their ability to write reflectively and, moreover, how their own ability to learn had improved. They considered how they had acquired their existing skills, how they had developed them and how they would continue developing them. Some explained that they had developed knowledge of the learning process. On a few occasions students actually used Kolb's Learning Cycle to express their skills development demonstrating not only a solid appreciation of the model, but making use of it in a practical sense (LEARNING TO LEARN).

> Through the placement, I have also surprisingly uncovered another skill that needs developing, which is my reluctance to ask for feedback. I will endeavour to ask for feedback on my performance, as this is a good way of enhancing development.

6.4.1 Summary of the Eight Themes of Reflection and Learning Logs for Business and Management Work-Based Learning

6.4.1.1 Work-Based Learning Adds Value

The student should show how he or she has benefited the placement provider and argue how their contribution has enhanced the bottom line of the business. Adding-value means that the outcome of working with an employer pays an economic dividend.

6.4.1.2 Knowledge in Action

Students have studied business and management topics over a number of years and often had to choose studying over and above a career. Consequently, during the placement the student has the opportunity to show how their knowledge can be applied in the real world. Accordingly the reflection can show which knowledge was applied, how well it worked and the opportunities for building the knowledge in the future. Examples could be summarised and reasoned to support knowledge in action.

6.4.1.3 Point in Time

Point in time offers the student the chance to reflect upon a situation more than once, as their point in time shifts. For example, students sometimes reflect upon their hopes and fears before they begin placements, i.e. reflections are recorded at the start of a log. Once the student begins work, the hopes and fears may become realised, but it is more than likely that they have become displaced, i.e. a second opportunity to reflect upon hopes and fears. Finally, at the end of the placement, students can critically reflect upon whether hopes and fears were justified and learn from the fact that one's perspective may move over time.

6.4.1.4 Skills Acquisition

Students build new skills whilst at work. Skills may be soft and not necessarily ones that would be taught in a classroom or they could be more purposeful. Objectives for personal development could be set as the student begins the placement and should form the golden threads that hold the reflection and learning log together.

6.4.1.5 Contextualisation

In order to support learning, students can access current knowledge and thinking in relation to a new skill in the workplace. This is where a student needs resources

such as journals and books so that their work can be contextualised. Hence a student working on a customer relationship management (CRM) system would need access to the work of current thinkers on that topic in order to contextualise their personal development. Their activities may even enhance current thinking if they are working with knowledge in an untested or niche area.

6.4.1.6 Future Orientation

Having completed a period of time at work, students now need to refocus their *point in time* towards the future. An audit of new and developing skills can be undertaken and new objectives for personal and professional development can be set. Here reflection can be integrated into lifelong learning.

6.4.1.7 360-Degree Orientation

Having reflected upon one's own personal experiences, there is value in probing others for their perceptions of your performance. Such an activity can be undertaken with tutors, line-managers, mentors, work colleagues or even suitable friends and family. Then the student can use the feedback to inform their next reflections.

6.4.1.8 Learning to Learn

Students need to reflect upon the development of their own learning skills. This can be supported with learning styles surveys such as Kolb's Learning Styles Inventory (Version 3) or similar, by looking into current knowledge on learning (contextualisation) or by asking tutors or others for feedback (360° orientation).

6.5 Conclusion

The eight themes of reflection and learning logs for business and management provide a number of opportunities for the enhancement of any business and management WBL programme. Most importantly tutors and students have a common framework by which they can maintain a proactive dialogue. If a student is new to reflective writing, he or she has eight potential aspects of their experience to reflect upon. A more experienced student could be encouraged to be proficient in relation to all eight themes. The themes can be embedded in classroom tasks that prepare students for WBL, in support information in handbooks and virtual learning environments (VLEs); they can form the basis of grading criteria or employer feedback. In fact, you can use them where you decide they best add value to the student experience.

This chapter provides a case study of how learning logs can be used to support business management learning. The model developed is designed around and supported by well-established approaches to engendering work-based learning, e.g. reflective practice, communities of practice-situated learning and mode 2

knowledge. It offers an example of practice that might be further developed and provides an insight to students' learning based on their experiences as they occur. It is hoped that this work makes a contribution in the way in which it provides a framework for activating the dynamic between theory and practice in business. The data generated for the review of students log entries provide some evidence, represented by the eight themes identified, that students are able to express their learning derived from practice.

The approach to structuring the learning log has considerable potential to engender reflective practice and mode 2 knowledge as illustrated by the findings. It offers a way of supporting students through a possibly challenging period as they enter a new community of practice through the structure the log provides and the online dialogue available with tutors whilst they are away from university. The framework established provides data for tutors to carry out formative and summative assessments of student learning in the workplace and the links they are making to theory. The completed logs provide a rich source of information for faculty staff in evaluating the effectiveness of the curriculum in preparing students for business. The student log entries can be reviewed to make adjustments to improve the student experience during their business placement and can provide data for staff to reflect on and improve their practice.

This is a practical chapter. The authors encourage colleagues to implement some of the suggestions mooted within their own WBL programmes and to report their findings and improvements so that the broader business and management community may benefit. With the proliferation of software for the support of students online, there is a rich largely untapped source of data. If evaluated effectively, the findings from such investigations can be used to improve the level and nature of critical personal reflection by our students and the feedback that they receive from academic tutors.

Appendix 1: Content Guide for Learning Log

Specific tasks		Deadline
Write a 1000-word reflection before you begin your work placement.	15	Semester 1
Conduct a SWOT analysis of your personal strengths, weaknesses, opportunities and threats as you begin your work experience. Weight the elements, then rank them. Include the analysis in your final submission.	10	Week 1
From the SWOT, state two SMART personal objectives at the beginning of your log. Agree them with your tutor early in your placement.	5	Week 1
Include your curriculum vitae.	NIL	

Specific tasks		Deadline
Log entries should be kept weekly or biweekly and should be made to record learning following any "significant events" e.g. after visiting a major customer, or if you received praise or criticism for a particular project. Explain what happened. How did you feel? What will you do differently in future? What resources or assistance would you need? Do you need to set in place new action points or objectives? The journal should contain 8–15 main entries in the prescribed format.	55	Weeks 1–10
Finally write a reflective statement to summarise your learning. How has the work experience helped your personal development? How can you plan for your future development?	15	Week 10

Appendix 2: Criteria for Assessment and Grading of Logs

	Learning logs – grading criteria
A 85%+	As with 70–84%. The entire log and its supporting materials will demonstrate high levels of deep reflection and critical thought. You will consistently refer to managers, mentors and others for a 360-degree review of your performance.
A 70–84%	Students complete a learning log portfolio. Log entries record experience, reflection and action points. Objectives are SMART. SWOT analysis (or other audits) records reflection on personal development in detail. All entries are focused, insightful and build upon one another. The final reflection not only reviews the cycle of learning and the adoption of new skills, but also considers the way in which the students has acquired new learning skills, i.e. learns-to-learn. Reflection will be generally deep and critical.
B 60–69%	Students complete a learning log portfolio. Log entries record experience, reflection and action points. Objectives are SMART. SWOT analysis (or other audits) records reflection on personal development that is fairly detailed. Most entries are focused, insightful and build upon one another. The final reflection reviews the cycle of learning and the adoption of new skills, and to a lesser extent considers how learning to learn may have changed. Reflection will be more analytical than evaluative, deep and critical.
C 50–59%	Students complete a learning log portfolio. Log entries give a more general overview of experience, reflection and/or action points. Entries are more descriptive than experiential and reflective. SWOT analysis (or other audits) is more general than focused or detailed. The final reflection is more descriptive than reflective. Little or no attention is given to learning to learn. Reflection will sometimes be descriptive will sometimes be descriptive and occasionally analytical or critical.

	Learning logs – grading criteria
D 40–49%	Students submit a learning log that is incomplete in some way (e.g. objectives are missing, log entries are too brief or are very spaced out). There is some evidence of reflection on experience. The work is general and descriptive. The final reflection is descriptive and general, with no evidence of reflection on learning of new skills or learning to learn. Reflection will tend to be more descriptive than analytical.
F less than 40%	The learning log portfolio has major flaws or important sections are missing. Entries are unrelated to objectives or audits. There is no evidence of recording experience or reflection. The final reflection shows no evidence of new skills or adapting the way in which the student learns-to-learn. There may be clear evidence of plagiarism. Reflection will tend to be general.

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Chapter 7
The "Clicker" Project: A Scholarly Approach to Technology Integration

Danielle Morin, Jennifer D.E. Thomas, Janette Barrington, Linda Dyer, and Maria Boutchkova

7.1 Introduction

How can we make larger classes more interactive, with all students (even those in the back row) feeling engaged, reflective, and questioning ideas being presented? How do we get students to read before coming to class and prepared to take an exam? How do professors get the most out of their lectures and class time? These are the kind of questions guiding a research study on "clicker" technology in the John Molson School of Business at Concordia University in Montreal, Canada. The purpose of this study is to evaluate systematically the use of clickers in a business classroom context.

Clickers, also known as student response systems, are handheld devices given to students so they can individually respond to multiple-choice type questions during lectures. For that reason, clickers are more than a simple show of hands. They are used to conduct in-class polls or to hold quizzes that count toward final grades. An interesting application given in Draper & Brown (2004) had the class agree or disagree, or rate the open-ended answer given by one student. Through wireless transmission and special software the professor can graphically display an aggregate of student responses immediately within a PowerPoint presentation. Students get instant feedback on their learning in-class time and, depending on how many students get the right answer, the professor knows whether to review the content or not. Although vendors claim benefits of this technology on student engagement and performance, research to date is sparse and often inconclusive (Caldwall, 2007).

The focus of the present research study is on student perceptions of learning including satisfaction in using this new technology. The Vice-Provost, Academic Programs, is leading the project and the Centre for Teaching and Learning Services, the University's centralized unit responsible for academic staff development, is providing pedagogical and research support. Developed and assessed through this

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project will be a new strategy for engaging faculty in collaborative research, working toward a scholarly approach to technology integration and an understanding of best practices in this area.

7.2 Theoretical Framework

Clicker technology is an innovative learning tool that has recently been appearing in university and college classrooms. Some research has shown that clicker technology is useful in increasing class participation and that participation is positively associated with student learning (Trees & Jackson, 2007). Clickers can be an excellent tool to help professors move from a basic teacher-led lecture to a more contemporary student-centered learning environment (Hoffmann & Goodwin, 2006). Research indicates that clickers increase participation and class discussion and that overall, students perceive them as a good active learning tool (Beckes, 2006). There is evidence that students learn more with this technology when they practice in class the same kind of multiple-choice style questions as on the exam (Carnagan & Webb, 2007). The problem is clicker questions are at the level of recognition and considered a low-level learning outcome compared to a written or oral response.

Bloom's Taxonomy (Bloom & David, 1956) suggests that learning is achieved on the mastery of a stepping stone of skills ranging from the lower level skills of recall or recognition of facts – knowledge, comprehension, to higher-order skills – application, analysis, synthesis, evaluation. This model has been refined by others, but the basic delineation is maintained (Anderson & Krathwohl, 2001; Oregan State University, 2004). Clickers are designed to capture the lower level skills characterized by rote memorization. Nonetheless, the aim of the instructor is to use those skills as stepping stones to lead the student to higher level cognitive skills.

While it can be argued that these tools capture no more than a simple raising of the hand, it can also be argued that the anonymity provided is likely to be more reflective and representative of the classes understanding of the material as a consequence of greater participation in the process, especially in large classes. The technology also provides the instructor and the class with immediate and visible statistical output of the data captured and displayed via a computer projection console, which is likely to lend a measure of interest and motivation for engaging in the process.

For these reasons, the use of this type of technology in the learning process, even in courses geared to the acquisition of higher level thinking skills, seems relevant. The instructor must know the misunderstandings that exist at the lower levels before being able to build up to the higher level skills, and clickers represent a speedy means by which to acquire this information (Stuart, Brown, & Draper, 2004).

The purpose of the "Clicker" Project is to investigate students' perceptions of these tools in their learning, in and of themselves, and as they contribute, if at all, to

their acquisition of higher-order thinking skills, such as communication skills, problem solving, generating creative ideas, conducting research, thinking critically, coordinating work, and fostering cooperation among students. Our hypothesis is that the more interaction in class between students and the professor and among students, even at the level of recognition, the more likely students will perceive an increase in their ability to achieve more sophisticated learning outcomes. Previous research indicates that whether students actually learn more or not, measures of which are always surrogates, their perceptions of the impact of technology on their development of higher-order thinking skills is very positive (Thomas, Jean, Michael, & Barbara, 2005; Morin & Thomas, 2004; Thomas & Driver, 2004; Thomas, 2002; Thomas, 2001).

Based on the nature of the clicker technology, however, research skills and coordinating work skills are not expected to be developed with this tool, as no tasks related to these skills are performed with the technology. On the other hand, it is expected to affect communication skills and collaboration based on prior research, as noted previously, but its contribution to problem solving, critical thinking, and creative idea generation is as yet unexplored and unknown.

7.2.1 Methods of Inquiry

The research to be presented is a case study that includes a triangulation of quantitative data with observation and formative evaluation data as well as assessment scores. Clicker technology was used for in-class practice, for assessment of understanding of assigned reading material, and for assigning participation credit. Students were asked near the end of term to complete questionnaires on their perceptions regarding the learning outcomes supported by the various tools used in the course. Students in an undergraduate Research Methods course collected and analyzed classroom observation and survey data so as to provide an essential student perspective while engaging in real-world research.

7.2.2 Data Sources

Seventy-six undergraduate students in two sections of a course on International Finance participated in the study. There were 45 men and 31 women. Most (81%) were between the ages of 18 and 24, and most (90%) were business majors. Eight percent were in their first or second year, half were third year students, and 42% were in their fourth year or later.

This course has an above average quantitative complexity as well as extensive interdisciplinary elements (economics, history, geography, political science). The main attraction of the course stems from its current-event orientation, whereby study material is tailored every semester to reflect developments in foreign exchange and money markets at the time of teaching. Two major team projects are required during

the course. As such, the course entails a fair amount of problem solving, critical thinking and creative idea generation, as well the necessity for team-building skills, such as communication skills, work coordination, and team cooperation.

7.2.3 Business Research Methods Students Developed and Administered Survey and Observations

The purpose of this portion of the study was to determine how the use of clickers may work to improve the overall learning environment for students. More specifically, as part of their course work, Business Research Methods students examined whether the perceived user friendliness of the technology, the students' preference for an interactive learning style, and student satisfaction with the technology have an effect on class participation and student learning. Our expectations were that the more positive the students' reactions to the clicker technology, and the higher their preference for guided (as opposed to independent) learning, the greater would be their interest in the course material, their participation in class discussions, and their level of learning of the course content.

In this student-developed and student-administered questionnaire, participants were asked about their preference for guided learning, their impression of the level of user friendliness of the clicker technology, and their satisfaction level with the clicker technology. We also collected data about their level of class participation, level of interest in the course, and their level of learning.

Measures: On a three-item scale, participants rated the extent to which learning the clicker technology was easy, whether their questions about clickers were answered to their satisfaction, and whether they believed the professor was at ease using the clicker technology. All questions were rated on a five-point Likert scale (1 = strongly agree) and are listed in the Appendix. The results are given in Table 7.1.

Table 7.1 Description and inter-correlations of major variables with Cronbach Alpha on diagonal

	Means	1	2	3	4	5	6
1. User friendliness	1.75	$\alpha = 0.71$	0.61^{**}	0.09	0.55^{**}	0.18^{+}	0.21^{++}
2. Satisfaction with clickers	2.05		$\alpha = 0.88$	−0.01	0.30^{*}	0.12	0.14
3. Guided learning preference	2.20			–	0.11	0.19^{++}	0.08
4. Interest in course content	2.05				$\alpha = 0.79$	0.48^{**}	0.57^{**}
5. Class participation	2.54					$\alpha = 0.73$	0.43^{**}
6. Amount of learning	2.00						–

$^{*}p < 0.01$; $^{**}p < 0.001$; $^{++}p < 0.05$; $^{+}p < 0.10$ (one-tailed)
Reliabilities of multi-item measures on diagonal.

The score on user friendliness of clickers was an average of these three ratings, found to be reliable in this sample (Cronbach’s alpha = 0.71). Participants also rated the extent to which they enjoyed using the clicker technology in the classroom, would recommend using the clicker technology in other classes, and would recommend that a fellow student take a class that uses clicker technology. The average of these three items formed our measure of satisfaction with clickers (alpha = 0.88). The students’ preference for guided learning was measured in a single question – “When someone shows me how to do something new or difficult, letting me do it along with them is best for me.” As with all the other questions on the survey, this was rated on a five-point scale (1 = strongly agree).

Outcome variables included class participation, the students’ interest in the course, and their own assessment of their learning. The seven items in the measure of class participation covered various forms of participation such as the extent to which students asked questions, came to class prepared to discuss course material, how much felt their opinion mattered or felt comfortable speaking in class. An average of these ratings was the participation measure (alpha = 0.79). The level of interest in the course was derived from eight questions including the extent the instructor seemed enthusiastic about the course, the extent to which they found the course material and assignments to be interesting, stimulating, and useful, and the effectiveness of the instructor’s methods (alpha = 0.73). Finally, to determine the participant’s self-assessment of learning, a single-item measure asked them the extent to which their knowledge of course subject matter had increased.

Supplementary observations: For both sections, two observers sat at the back of the classroom during the first half of the class. They counted the occurrences of specific student behaviors such as yawning, cell phone use, surfing the Internet (on laptops), talking, and eating. Until the teacher made an announcement at the mid-class break, the students were unaware of the reason for the observers’ presence. At the break, students were asked to complete the survey and the data-collection activities were explained. These observations are summarized in Table 7.2.

Table 7.2 Frequencies of observed behaviours

	Before clicker use	During clicker use	After clicker use
Yawning	4	5	10
Cell phone use	2	7	3
Talking	103	42	30
Internet surfing	5	13	0
Eating	8	3	0

7.3 Results – General Clicker Use

The data revealed support for several of our predictions (see Table 7.1). Students who found the clickers to be user-friendly were significantly more likely to say that the course content was interesting and that their knowledge of the material had

increased. There was a marginal relationship between perceptions of user friendliness and students' reports of participating in class discussions. We also found a significant link between satisfaction with clickers and interest in course content, though satisfaction was not related to participating in class or amount of student learning. A preference for guided learning was unrelated to satisfaction with clickers, though there was an association between this preference and participation in class. Not surprisingly, interest in the course content and participation were correlated with the amount students said they had learned.

Results – Observations: The results of the observations are presented in Table 7.2. The observers noted particularly a decrease in talking during clicker use. Their impression was that there was a great deal of banter unrelated to the course before the clicker exercise started, but the talking during clicker use was focused on the course material. They also surmised that the increase in Internet surfing and cell phone use might actually have been related to sharing information about the questions under discussion or finding the answers to the questions on the web. These conclusions would need to be supported by a more extensive and rigorous set of observations.

Course Instructor Administered Surveys: In addition to the broader survey questions on use of clicker technology investigated above, students in this portion of the research were asked to evaluate more specifically how the clicker technology assisted them in attaining several learning objectives, such as conducting research, communication skills, problem solving, creative ideas, thinking critically, coordinating work, and collaboration among students. Students were provided with definitions of these various concepts:

- Conducting research – investigating, finding, and synthesizing information from multiple sources.
- Communication skills – conveying ideas effectively, both orally and written.
- Problem solving – deriving alternatives and solutions for complex problems/issues with incomplete information.
- Creative ideas – ideas that are novel or unique.
- Coordinating work – bringing together work from multiple sources and team members.
- Cooperation – interpersonal skills, resolution of differences.
- Critical thinking – analysis, inference, reasoning, evaluation, explanation, interpretation.

This survey was adapted from one developed and used in prior research by one of the authors of this chapter (Thomas, 2001). They also answered additional questions related to general clicker usage.

Measures: Students assessed the learning objective questions on a three-point scale (a lot, moderate. and not at all) and the four general questions on a four-point scale (agree, strongly agree, disagree, strongly disagree).

Results – Contribution to Learning Objectives: The results are presented in Table 7.3. The means column and standard deviations are calculated by assigning a score 1 to "A lot", a score of 2 to "Moderate," and a score of 3 to "Not at all"

Table 7.3 Distributions of Clicker Technology Support Perceptions for Learning Objectives

Learning objectives	*N*	Mean	S.D.	Alot (%)	Mode rate (%)	Not at all (%)	Positive impact (%)
Conducting research	63	2.25	0.69	9 (14)	29 (46)	25 (40)	60
Communication skills	64	1.98	0.70	16 (25)	33 (52)	15 (23)	77
Problem solving	64	1.67	0.59	25 (39)	35 (55)	4 (6)	94
Creative ideas	64	1.91	0.68	18 (28)	34 (53)	12 (19)	81
Thinking critically	63	1.71	0.63	24 (38)	33 (52)	6 (10)	90
Coordinating work	64	1.98	0.77	19 (30)	27 (42)	18 (28)	72
Cooperation among students	64	1.95	0.76	20 (31)	27 (42)	17 (27)	83
Overall impact on learning	62	1.79	0.45	14 (22)	47 (76)	1 (2)	98

and taking the average. By combining the frequencies corresponding to "A lot" and to "Moderate", we build the last column, which is the percentage of students who thought the clickers had a positive impact.

Two learning objectives have been clearly identified by students as having been greatly enhanced by the use of the clickers – problem solving and critical thinking. There was no a priori basis for predicting this outcome other than intuition, which the results support. Developing creative ideas and cooperation among students was more moderate. Very few attributed low support of the learning objectives from the use of clickers. However, research skill and coordinating work skill were not strongly perceived as being developed with this tool. Clicker technology was expected to affect communication skills and collaboration, based on prior research, and was moderately confirmed by this research. When asked, overall, how much did the clicker technology contribute to their learning in the course, 22% claimed a lot, 76% somewhat, and only 2% responded not at all.

Results – Contributions to General Perceptions of Clicker Usage: Using a four-point scale, more general aspects of the usage of the clicker technology were explored and we can see that once again a very high percentage of students perceived a positive impact from the contributions made by the clickers and agreed or strongly agreed, with the statements that describe various learning aspects of the clickers, see Table 7.4, below. When asked, "Would you prefer learning with or without the clickers?" 91% indicated with, only 9% said, without.

Results – Instructor Observations: According to anecdotal observations made by the instructor of the course, students exhibited a high level of concentration during the clicker sessions and were very compliant with instructions and usage. The clickers facilitated the assessment of pre-delivery and post-delivery of material, the administering and grading of quizzes and participation, and the immediacy of feedback.

Implications for Innovation of Practice: The pedagogical rationale for using clickers is to achieve active participation of all students during classroom instruction and to provide immediate feedback to students on their learning and to professors on

Table 7.4 Distributions of general clicker use perceptions

Question	*N*	Mean	S.D.	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly disagree (%)
Seeing the clicker answers of my peers improves my understanding of a concept	62	2.03	0.57	9 (15)	42 (68)	11 (18)	0
The clickers are an efficient way to practice fundamental concepts	62	1.87	0.53	13 (21)	44 (71)	5 (8)	0
The clickers are an efficient way to demonstrate the student's thoughts and out-of-class preparation based on an assigned reading	62	1.95	0.58	11 (18)	44 (71)	6 (10)	1 (2)
Students' improved understanding and opportunity to practice more than compensates for the time spent on clicker sessions	62	1.90	0.65	15 (24)	39 (63)	7 (11)	1 (2)
Would you prefer learning with or without the clickers?	64		With: 58 (91%)	Without:6 (9)			

their teaching. Clickers also assist professors in assessing student knowledge prior to and following class lectures. An added bonus is to allow for efficient grading of in-class quizzes and participation grades.

Another argument for using clickers in the classroom is that students will gain the opportunity to get acquainted with modern software, thus enhancing their motivation while simultaneously improving their skills required in the modern work place.

In terms of ease of adoption, the software used in this study is *TurningPoint*, a leading supplier of clicker technology in higher education and corporate/professional settings in North America. The software is easy and simple to use, the cost is minimal, the online training and technology support for professors is excellent, and there is zero student support needed.

Based on our surveys, students' perceptions do seem to support the benefits of including clicker technology in the learning toolkit. This research found some evidence that clicker technology, when well explained to students and used with ease by teachers, might improve students' interest, their beliefs that they are learning effectively, and, to some extent, their participation in class discussions. When clickers are used, the technology may serve to focus on discussion on the course material. On both of the surveys, most students assigned moderate to high perceptions of contribution from their use; demonstrated more focused attention, engagement, and reduced distractions during class; and expressed preference for learning with the clickers.

7.4 Conclusion

Although this was a small sample of students in a single business course with a single teacher, these initial findings suggest that clickers might be a promising innovation with the potential to stimulate attention and learning in the university classroom, especially for large classes. Draper & Brown (2004) point out that technology must serve pedagogy. We are a long way off from understanding if, and how, clicker technology can best serve pedagogy. More research is certainly needed to determine best practices with this technology, but the study corroborates and lends support for the findings of prior research in the area.

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Appendix: Measures on the Student-Developed and Administered Questionnaire

- User friendliness of clickers (alpha = 0.71)
  Learning how the clicker technology worked was easy.
  Questions about how to use the clicker technology were addressed to my satisfaction.
  The professor was at ease using the clicker technology.
- Satisfaction with clickers (alpha = 0.88)
  I enjoyed using clicker technology in the classroom.
  I would recommend using the clicker technology in other classes.

I am likely to recommend that a fellow student take a class that uses clicker technology.
Preference for guided learning
When someone shows me how to do something new or difficult, letting me do it along with them is best for me.

- Class participation (alpha = 0.79)
  The instructor creates a learning environment that encourages student participation.
  I feel encouraged to actively participate in this course.
  Feeling that I am a part of a class is important to me.
  I have asked questions in the class or contributed to class discussions.
  I feel that my opinion matters.
  I stimulate class discussion with my opinions.
  I feel comfortable speaking in class.
- Interest in course (alpha = 0.73)
  The instructor stimulated interest in the course.
  Course material and assignments are interesting and stimulating.
  The subject matter of this course is something that I consider useful.
  The instructor is enthusiastic about the course.
  Self-assessment of learning
  My knowledge of the course subject matter has increased significantly.

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Chapter 8
Business Entrepreneurs' Mindsets on Their Enterprises' Business Model

Christopher J. Brown and Diane Proudlove

8.1 Introduction

Enterprises are presented with ever-increasing challenges regarding marketplace uncertainty and ambiguity. They face competitive pressures from local and international sources, their competitors are constantly modifying products and services to push ahead of them and their customers expect responsiveness and innovativeness to their expressed and latent needs. The enterprises' very success, and survival, depends on their ability to change their business, market and product strategies to fit these challenges.

Underlying these strategies is the enterprise's business model. Simply, business models are an enterprise's understanding and interpretation of how they currently, and in the future, achieve their revenue and profit streams. These business models, used by the senior management and employees, are often based on outdated perspectives of both how the marketplace works and their understanding of changing business and customer values. In new enterprise start-ups and development the creation, development and creative deconstruction stages in the evolution of their business models are most often driven by the founding entrepreneur or subsequent corporate entrepreneurs brought in by the owners to assume business management. The business entrepreneurs' mindset of their business model is likely to be highly subjective, based as it is on their sense-making of the internal and external environments.

Interestingly, more recent research has strongly linked entrepreneurs' mindset, or the mental models (Zahra, Korri, & JiFeng, 2005) associated with the challenges to the enterprise, with their drivers for innovation in their business models and underlying business processes. Other research has identified the potential value changes, business and customer, that can often facilitate the construction and deconstruction of business value-based innovations, the re-assessing and re-validating of their business models (Munive-Hernandez, Dewhurst, Pritchard, & Barber, 2004)

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and the reflection of these in their overall business processes (the process-oriented business model).

This chapter discusses the research study, undertaken by the authors, to explore the link between entrepreneurs' understanding and interpretation of business opportunities and threats, the potential influence this exerts in challenging their mindset business model and then the subsequent changes in their process-oriented business model. The chapter begins by discussing the two broad approaches to modelling enterprise strategies and the resulting integrated business models: innovation and process orientations.

8.2 The Business Model: Two Perspectives

Business model (BM) research has highlighted the link between innovation and business model changes (Pateli & Giaglis, 2005). If viable and sustainable business models are critical for business performance, then understanding and interpreting the internal and external marketplaces and mapping this against the enterprises' competencies, capabilities and overall product/service offerings is essential. The challenge for enterprises is the approach taken in reviewing their business models, and the challenge in BM change. Creating or changing the BM is a risky strategy. Depending on the level of risk aversion enterprises focus on one of two strategies: an innovation-orientated approach of radically creating an entirely new BM or choosing an improvement type strategy which is less risky and extends or renews the existing strategy and BM.

These two approaches to understanding business models, their creation, development and creative deconstruction are discussed in the following two sub-sections.

8.2.1 The Innovation-Orientated Business Model

An innovation-orientated approach to business model analysis is a very systematic examination of the "creative factory" of an enterprise's product or service development pipeline (Pateli & Giaglis, 2005). Understanding and evaluating the enterprises' innovation systems to create, develop and deliver products and services directly provides both financial and non-financial metrics (Pohlmann, Gebhardt, & Etzkowitz, 2005a). Innovation can deliver "first mover advantage" and sustainable competitive advantage, but it relies entirely on applied creativity, and therefore highly innovative and creative cultural environments (Khandwalla, 2006). For enterprises that have conservative or bureaucratic cultures this can represent a significant mindset change: this can be a challenge.

These mindset changes originate from the different stakeholders' re-evaluation of the business model, and specifically its ability to sustain a viable revenue and profit stream. What are these challenges and how do they potentially impact on the sustainability, and viability, of the business model?

Innovative Leadership: Large and small enterprises globally are aware of the opportunities and threats represented by today's uncertain and ambiguous marketplaces (Cravens, 1998), but their current mindsets are unable to create the new dialectical synthesis required to change. The inevitable dialectical synthesis, the combination of seemingly opposing forces required to identify opportunities and threats within the marketplace, highlights key issues: a focus on clear market identification (Weinstein, 2006); challenging the existing mindset segmentation of customers/consumers – and the need to understand and interpret their perspectives.

Market and Business Legitimisation are the means by which enterprises attempt to improve their economic performance with the act of stimulating radical and incremental innovation (Gilbert, Ahrweiler, & Pyka, 2007). Research (Calia, Guerrini, & Moura, 2007) has focused on the increased resources these technological innovation networks provide, but not on the opportunities presented for challenging individuals' mindsets on product idea creativity and innovation, particularly the identification of viable marketplaces. Increasingly, technological and radical innovation come at a very high cost, therefore the ability to identify viable marketplaces and appropriate business models providing sustainable and profitable revenue streams is critical.

Knowledge Management is the "litmus test" of an organisation's success for creating new products and services, and ultimately sustaining revenue and profit streams (Pohlmann, Gebhardt, & Etzkowitz, 2005b). Research on innovation processes establishes a positive relationship between innovation and enterprise performance (Galanakis, 2006). However, these studies on innovation process look at the mechanisms behind the processing of innovative ideas to product launch, not the mindset perspectives that helped develop and sustain an appropriate innovation system. To explore this, organisations must challenge the mindsets upon which these innovation systems were first created, mostly by evaluating the dialectical synthesis associated with their primary goals to challenge the resource mindsets surrounding product-focused and organisational competencies and the leadership style of entrepreneurs and followers and respond appropriately to the external drivers (Pina e Cunha, da Cunha, & Kamoche, 2001).

These three innovation drivers effectively become the enterprise's innovation strategy for a new business model, but importantly the model is missing one important element: what is the full economic cost of implementing the changes? For this the authors used a second business model, the process-orientated perspective.

8.2.2 The Process-Orientated Business Model

The process-orientated business model approach to analysing business environments (internal and external) is not new, nor is there much agreement on the approach to take. But at least there is a core agreement based on the theory of economic development (Schumpeter & Opie, 1934) that value is created from the unique combinations of resources with the intention of producing innovations that

are positioned within the broader value creation network (Morris, Schindehutte, & Allen, 2005). These value creation networks utilise the competence developments of the different partners, internal and external resources, to create and deliver new customer value (Berghman, Matthyssens, & Vandenbempt, 2006).

These value-based systems have inputs, processes and outputs. The European Foundations Quality Model (EFQM) (Robinson, Carrillo, Anumba, & Al-Ghassani, 2005; Rusjan, 2005) is often used to show the interconnectivity of market drivers, customer value-adding business processes and key performance indicators (KPIs). This business process model has been selected here to illustrate the common approaches and attributes of this process-orientated perspective.

The overall process-orientated business model identifies the inter-relating value-creating, development and delivery stages by which enterprises achieve their long-term sustained revenue and profit streams by re-evaluating the specific value-adding components of the EFQM and the challenges faced:

Leadership, more often than not, perpetuates the status quo. It is easier to maintain the same course, the products and services, than it is to re-examine and re-engineer management processes (Hamel, 2006). Whether participative, transactional or transformational leadership styles are adopted existing business models are rarely abandoned completely: most new leaders pick up from where the last left off, often making the same mistakes regarding assumed business, market and customer values. Very few have the time or motivation to challenge the underlying business model, and instead spend their time working at operational levels to control costs.

People are the pivotal competencies and expertise around which current and future products and services are based, yet professional training development programmes are increasingly cutback (Rajadhyaksha, 2005). At the same time employees are focusing on the opportunities for professional development, enhancing their value to the organisation, and their future employability within the wider employment community. Yet very few businesses have even engaged in the task of marrying current competency mapping to future business needs (Guimaraes, Borges-Andrade, Machado, & Vargas, 2001).

Policy and Strategy: Considerable time and effect is often put into the business, marketing and product planning stages (Miller & Cardinal, 1994) of either new product developments or the annual assessment of previous, current and future prospects.

Partnerships and Resources: Significantly the most important decision that enterprises have to take to enable them to progress projects and programmes and change their futures. Few enterprises have an explicit strategy regarding the means by which they openly facilitate organisational learning, and clearly partnerships and networking are a significant vehicle by which these can be stimulated (Gilbert et al., 2007).

Processes are the result of experiential learning; they reflect the successes and failures of the business. They are also a cognitive framework by which organisations formally learn and evolve a changing shared mental model of their company, their market and their customers (Sinkula, Baker, & Noordewier, 1997). Information acquisition and dissemination is the engine driving this process.

Key Performance Results: Considerable tools and metrics exist to provide very detailed performance metrics. These data are incredibly valuable for monitoring and controlling existing actions plans and the effectiveness of these activities (Morgan, Clark, & Gooner, 2002). However, the challenge for enterprises is to create, develop and deliver performance results that provide, succinctly, the information absolutely essential for determining the effectiveness of the current business model and helping to identify where perhaps the business model is no longer performing.

Innovation and Learning: Perhaps the most important element of our process-orientated business model, yet the one that is almost always at the bottom of the priority list when it comes to resource allocation and mobilisation. Very few organisations explicitly manage their innovation processes or understand the intricate demands and issues associated with effective organisational learning (Dougherty, 1992). Understanding, interpretation and sense-making are the three core skills that underpin effective innovation systems and learning processes, yet very few enterprises audit or facilitate this skills-building.

Evaluating the business model from the process-oriented approach aligns the processes to the known market drivers, establishing clear road-mapping for all functional roles to understand their part of the overall value-orientation strategy. However, this can only deal with what is known, previously experienced and learnt; it is poor at adjusting for uncertain and ambiguous market environments. What is needed is to understand the mindset business model that the business entrepreneur has and which ultimately drives changes in this underlying process-orientated business model.

The next section identifies the broad research aims, and importantly the initial research questions used in the interviews to explore entrepreneurs' approaches to business opportunity and threats analysis.

8.3 Exploring Entrepreneurs' Perception of Their Existing Mindset Business Model

The research study set out to explore the entrepreneurs' approach to the evaluation of business opportunities and threats and any subsequent changes needed to their mindset business model. They were asked five basic questions on how their business reacted to business opportunities and threats, and specifically how they evaluated these and any subsequent changes they might make in their business model. The five questions were generic and applied to product- and service-based organisations large and small:

1. Describe your existing business model.
2. What type of business opportunities and threats do you face each year?
3. How do these opportunities and threats challenge your existing business model?
4. How do you evaluate these opportunities and threats?
5. What are the critical factors determining a positive outcome?

The next section discusses the research methodology used.

8.4 Research Strategy

The research design was based on an exploratory strategy collecting data from two sources, using two methods: the first, a literature review; the second, 12 semi-structured interviews examining the perceptions of entrepreneurs concerning the link between business opportunities and threats, and their mindset business models.

A small sample of SME entrepreneurs were selected, based on three principal criteria: they had direct control of the enterprises resources and were the principal entrepreneur; their respective businesses were well established and they had an initial mindset business model; and last, they had the desire to grow their enterprises. As such this sample should provide information-rich case material (Patton & Patton, 1990). As Patton and Patton (1990, p. 169) observed: "Information-rich cases are those in which one can learn a great deal about issues of central importance to the purpose of the research." The 12 entrepreneurs were randomly chosen from UK industry, some coming from manufacturing enterprises and others from the service sector.

Content analysis was used on the transcripts from the interviews. Nvivo software, a Nu*dist type qualitative analysis software package, was used to help organise, code and provide statistical data on the resulting axial and core codes. A key concern was the validity of the content analysis, therefore considerable weighting was given to the latent sense-making the entrepreneurs put on their actions and subsequent understanding, rather than just the superficial interpretation of the literal content.

8.5 Evaluating Business Models: An Entrepreneur's Perspective

The research study conducted interviews with 12 entrepreneurs from a selection of product- and service-oriented enterprises. Initial analysis of these entrepreneurs' transcripts suggested two important steps associated with the evaluation of business opportunities and threats, and the subsequent impact on their mindset business models:

1. A re-evaluation of the entrepreneurs' values and purpose, and as a consequence that of the enterprise;
2. The potential changes to the entrepreneurs' mindset BM, supporting both the enterprises' innovation orientation and its more systematic process model that creates, develops and delivers the enterprises' value propositions.

These are explored further in the next two sub-sections.

8.5.1 Changing Entrepreneurial Values and Purpose

Research into the link between entrepreneurship and innovation processes (McFadzean, O'Loughlin, & Shaw, 2005; Shaw, O'Loughlin, & McFadzean, 2005)

has mapped, in considerable detail, the role and activities of entrepreneurs in changing innovation processes. These models assume a degree of stability in the overall business model, allowing these processes and innovation management approaches time to assimilate, understand and change. Increasingly enterprises operate in marketplaces that dramatically change in relatively short time frames. Entrepreneurial orientation is not in question, but the speed at which a BM changes is – hence the exploration of entrepreneurs' initiation of change in SMEs, a valuable lesson that larger organisations may be forced to adopt. Entrepreneurial literature (Brazeal, 1996) processes many steps and stages by which they challenge the status quo, but few of these show the experiential learning as a constantly evolving cycle by which they adjust to external and internal factors (Fig. 8.1).

Identified in these entrepreneurial drivers, mapped above, were three interrelated themes challenging the entrepreneurs' values, beliefs and future actions:

Entrepreneurial Values: The entrepreneurs' values are constantly being challenged externally by the business opportunities and threats arriving at the enterprise's door every day. These opportunities and threats push the entrepreneurs to challenge, encourage and examine three interrelated value drivers of the enterprise:

1. Customer orientation: is the enterprise meeting the customers' expressed and latent needs, a customer focus on delivering superior products and services?
2. Market orientation: is the enterprises focus on the integration and coordination of marketing functions to maximise the revenue and profit streams?
3. Enterprise values: are the underlying value propositions driving market, product and brand strategies.

Entrepreneurial Vision: The entrepreneurs' vision as a consequence of the challenges to their entrepreneurial values changes, with the result being the need to make other changes:

1. Enterprise positioning: how does the enterprises' position "fit" with these changes, does it need to change what it does, how it does it and the underlying value propositions?
2. Innovative products/services: what should they do and why?

Entrepreneurial Actions: The entrepreneurs' actions reflect the overall change in their mental model of the enterprise and its "fit" to the marketplace. As a consequence, there are perceived changes in the enterprise's underlying business model:

1. Current business model: is the enterprise meeting the stakeholders' expressed and latent needs?
2. "New" business model: is the entrepreneurs' understanding of how the enterprise should operate, to respond better to opportunities and threats?

The changes in the entrepreneurs' values and purpose drive a change in their mental model of the enterprise, more specifically the underlying mindset business model. The understanding and interpretation that entrepreneurs use to create, develop and destroy the enterprises' business model is explored in the next section.

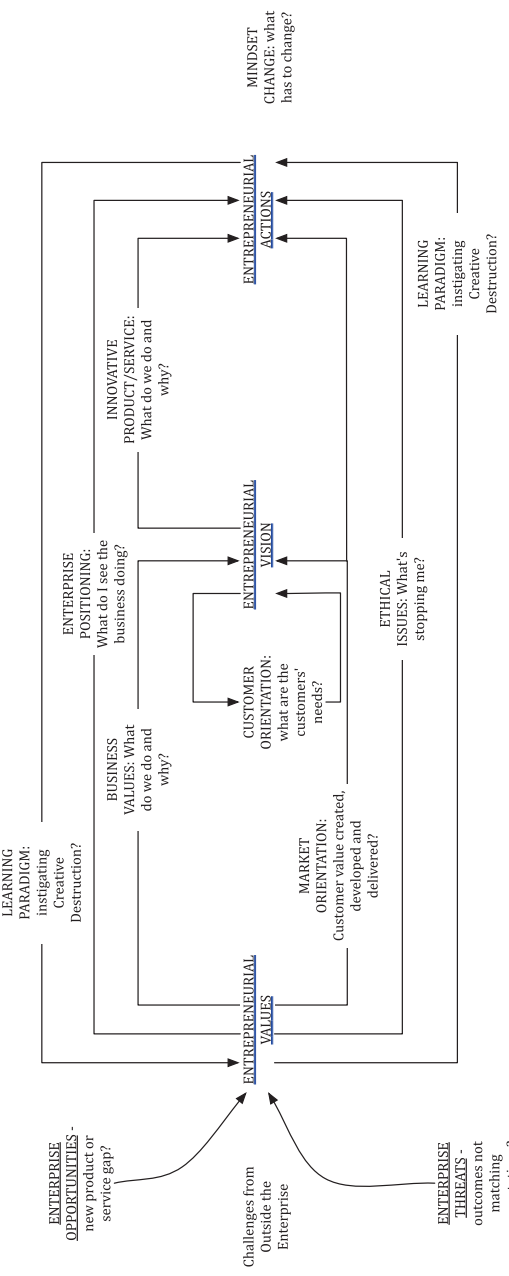

Fig. 8.1 Entrepreneurs' values and purpose – challenges and changes

8.5.2 Emergent Mindset Changes to the Underlying Business Model

Certainly the research on the link between entrepreneurship and innovation (McFadzean et al., 2005; Shaw et al., 2005) has identified important entrepreneurial input to the process of change. More recent research on exploring the specific functions of an innovation system, at the sector level, has highlighted six pervasive themes that are critical to radical and technological change, and these are reflected in the mapping of our entrepreneurs' mindset business model (Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007). The resulting innovation processes are often too complex and prohibitively expensive in resources and time to suit the SME marketplace. Lean innovation (Rothwell, 1994) may present a way to speed up developmental time and decrease costs, but in reality it is too targeted towards medium to large organisations operating in marketplaces where they have established a market position and the marketplace is relatively stable. Entrepreneurs' mental models of the internal and external environments must challenge the enterprises' underlying value and purpose, their innovation systems and the underlying business model supporting its operation and survival. This is reflected in Fig. 8.2 below.

The analysis and exploration of the interview transcripts for common themes, by which these entrepreneurs re-assessed their mental models of the enterprise and the potential changes in the supporting business model, resulted in six broad interrelated themes:

8.5.2.1 Entrepreneurial Initiation

Ultimately it was the entrepreneur who initiated change because of the challenges associated with his assessment of the enterprises' values and purposes. (Note: for the purpose of brevity narrative insertions have been shortened):

- Values: It is unsurprising that entrepreneurs talk first and foremost about their value propositions, and especially how these are challenged by the current business opportunities and threats:

  Innovative world leader in our field

  Unique in the UK

  Go above and beyond client expectations

Research (Thomke & von Hippel, 2002) suggests that resolving conflicts between customer and business value is fundamental to business models.

- Vision: Operational excellence and success focus on entrepreneurial leadership (Darling & Beebe, 2007). Unsurprisingly, the authors' research suggested that vision directs their values and activities:

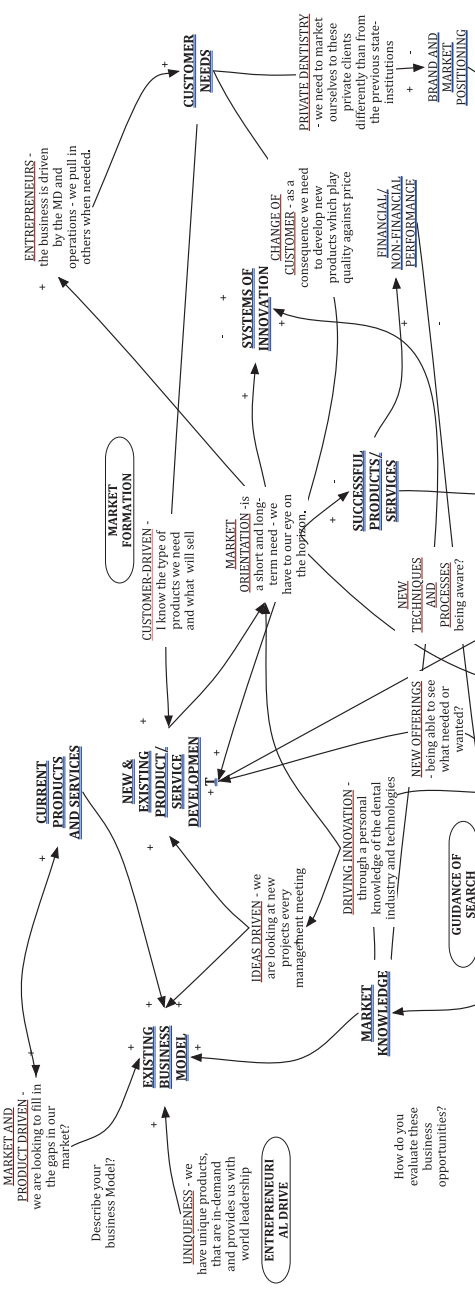

Fig. 8.2 Mindset business model – linking value changes to the business model synthesis

Seek the big break

Originality: constantly reinvent to stay ahead of the competition

Fill the gaps – identify new territories and new products

But these vision perspectives are very much driven by the entrepreneurs' personality (Chapman, 2000), and this suggests that entrepreneur type and enterprise performance are very much linked.

- Entrepreneurial Actions: Entrepreneurial actions are the critical pathways to the creation, development and creative destruction of sustainable business models. The entrepreneurs in this survey were no different to thousands of others focused on gaining the all important competitive advantages and improved performances:

  Use technological advantages – be better, faster, more efficient

  Be competitive or create new markets

  Take advantage of the market position to diversify and exploit opportunities

  Seek easy ways to add value to the business of our clients and their clients

These entrepreneurial actions may strengthen the existing mindset business model the entrepreneur has for his enterprise and the environment, or stimulate differing levels of innovation.

8.5.2.2 Knowledge and Expertise

Two important factors emerged consistently among the entrepreneurs regarding the very early stage evaluation of business opportunities and threats and potential changes to their mindset business model. These were

- Accessing expertise: often associated with external networking to help the enterprise collaborate and develop future strategic partners by which new products and services could be created, developed and delivered in a timely manner:

  If we haven't got someone we start looking at how to get them

  I'll take the samples to the best dealers, get their feedback about whether they are the kind of products the market will accept and, if so, those retailers help me understand what the market will pay

  I typically discuss the issues with a close advisor who effectively acts as a non executive director

After assessing the need to change the business model, identifying the new knowledge needs of the enterprise is the second most important issue facing entrepreneurs.

- Managing Information: Accessing the relevant information needed to make the all important decisions on where to look and what to seek requires an understanding of the key information categories and the means of acquiring and disseminating it:

> We win business by using our relationships to get information about what our competitors are doing
>
> We have one problem with the sample size, we need a larger sample to be able to feel comfortable about the data
>
> We are always systematic . . . . We analyse to death and then we act

Entrepreneurs are looking to develop or modify their external innovation systems – the sources of knowledge and information they have already developed that previously have helped them to where they are today.

8.5.2.3 Leading the Search

Where was the innovative leadership to come from? What would be used to understand the rationale for innovation?

- Innovative leadership: leadership and innovation are very much linked to business performance (Topalian, 2000), but little has been researched on the longer term impact of entrepreneurs on innovative leadership. The authors' findings suggest that innovative leadership is uppermost in most entrepreneurs' minds, but few think further than the next 9–12 months:

> Passionate about what I am doing. . ..offer companies USPs which enable us to stand out whilst we create opportunities for them
>
> Vital you make proactive positive decisions
>
> Constantly assessing the validity of the things you have done and put in place

The insights these entrepreneurs (Dutta & Crossan, 2005) have concerning the means by which to create, develop and deliver new customer-valued products and services drive all subsequent actions. This innovative leadership is still highly subjective, based mostly on a belief in the true potential of the undertaking.

- Road-mapping: holds considerable value for entrepreneurs and enterprises in knowledge management, and then of course make decisions on a more up-to-date perspective of the enterprises' options and strategies. The entrepreneurs interviewed either formally or informally utilise road-mapping as a means to both analyse the problems and communicate to others on potential strategies:

> Either use the technological advantage to produce a product better, faster and more efficiently or, if the level of investment is prohibitive, make the decision to outsource
>
> Make decisions based on where you see the brand sitting price wise and work back from there to satisfy the distribution chain. . .if it becomes apparent that cost and retail price don't meet we won't go with it
>
> It has to be commercially viable; there isn't any cost analysis done as such but if I can see a good return on my time and resources I will go with it

Yet, another area where entrepreneurs often feel they could do more, and benefit from it.

8.5.2.4 Market Identification and Segmentation

Identifying the market for the proposed product or service concept, and then the targets' mindsets:

- Market identity: new market creation is a search and selection process, but turning them from a theoretical perspective into firm reality takes a variety of exploratory strategies (Sarasvathy & Dew, 2005). Entrepreneurs are well aware of the importance of the interactional approach to building markets; they are masters to varying degrees:

> We have had to find a number of new approaches to the way we market our products because instead of marketing to state owned organisations we are selling higher priced alternatives to private organisations
> What really appealed was the opportunity for volume and repeat business so I focus on these targets

> Our clients vary from SMEs to Blue chip organisations such as Hewlett Packard and NHS trusts: they are looking for a quality standard but invariably need so much more

The entrepreneurs' interactions with their perspective stakeholders effectively creates new markets. These markets are established based on commitments made by both parties, the customer and the stakeholder.

- Market Segmentation: is an important activity for the entrepreneur in being able to define his specific target market and thereby justify his assumptions concerning future revenue and profit streams:

> We keep an eye on the domestic market as people have reduced spending . . . an alternative is to have a product which is more expensive initially but lasts longer and is cost effective
> All decisions are made at head offices of the target companies so will send them complimentary products and then do a follow up

> We target the large scale projects because that eliminates many of the smaller companies who are unable to finance, insure and bond such schemes

8.5.2.5 Mobilising Resources

Two very important issues challenging the viability of the product or service concept and with which entrepreneurs are concerned are

- Team development: is a very challenging issue for most entrepreneurs yet, because of the nature of these fast-growing businesses, they attract a certain type of individual who is not looking for security but instead professional development (Friedman & Phillips, 2004). This is reflected in some of the entrepreneurs' concerns about engaging their team members and changing the roles of these people, both to facilitate future innovation and creativity and provide a challenging environment by which to achieve team commitment:

> We do an internal culture audit: how do we conduct business and are there any gaps between this and the expectations of the PPPs. . .. We must have commitment and motivation from the team

> You have to change everything from the way management works in the business to people's roles to the way infrastructure works
>
> Management time is taken up with HR or Health and Safety – that's two areas we have decided to outsource to independent consultants so management can focus on the things they know more about and do better

An increasing part of the drivers in team learning is freeing off time for teams to create and develop their own networks, using internal and external resources, and to outsource activities that do not add business, market or product value.

- Financial and non-financial support systems: can be an enabler, and barrier, to innovation. Increasingly entrepreneurs are starting to look at these support systems, not purely from their financial delivery perspective, but on their potential to impact on the creativity and innovation process:

> We produce a rolling 12 month cash flow forecast
>
> Annually the whole business is reviewed and the Heads of Cost examined; we question where we can improve and where we can be more efficient
>
> We have had a network installed so that staff can access central files and introduced software to give us a more accurate pipeline on where the business is at, as it develops
>
> My husband is helping me out with the finances and some marketing and I also have an administrator who works part time

Finance is a central factor in the internal stimulus for innovation. If funding is not available to invest in potential market opportunities, to free up time for innovators within the organisation to explore technological, operational or product innovations, then innovation is being stifled.

8.5.2.6 Legitimising the New Business Model

Who is going to support and sponsor the changes, and what is required for the creative destruction stage? For brevity the authors have only included a sample of the narrative extracts:

- Advocating Processes: entrepreneurs may be the "Godfather" in their respective enterprises, capable of wielding the leadership and resources to bring to bear on the specific opportunity or threat, but they are not the only gatekeepers. Various gatekeepers were identified by the entrepreneur as essential for the future success of the product and service concepts:

> You learn to prioritise as you get to know your business

- Creative Destruction: often the greatest challenge to the entrepreneurs' mindset business model is their ability and willingness to reinvent and re-engineer their respective enterprises (Gibb, 2002). Interestingly, the entrepreneurs all felt a need to challenge the status quo, if not always the commitment to change their business model:

> Some projects take a lot of research. We may not have time at the point at which we need to make a decision to get this information, so we may go ahead and then find things are more onerous and question our original decision. The decision was legitimised by the original process but that doesn't preclude our ability to subsequently withdraw

Risk aversion and the level of confidence in the evaluation and analysis of these business opportunities and threats is an important factor in an entrepreneurs overall willingness to instigate this final and important "creative destruction" stage.

8.6 Conclusions and Managerial Implications

The initial findings of this research study suggest a hierarchical approach by entrepreneurs in assessing the influence of business opportunities and threats on their mindset business model, and subsequent changes in the underlying process-orientated business model:

Entrepreneurial Values and Purpose: Entrepreneurs deliberate on the potential impact of business opportunities and threats on their own values, vision and actions. As a consequence of this deliberation they either undertake a re-evaluation of their mindset business model, discussed below, or not.

Mindset Business Model: Entrepreneurs having revised their values and the purposes associated with the existing business model undertake to challenge the underlying premise by which it was originally constructed.

They re-evaluate:

- its values and purpose
- the knowledge and expertise needs
- what is guiding the search
- market identification and segmentation
- issues of resource mobilisation
- the legitimisation of the new business model

Changing the Business Process: The entrepreneurs then delegate this new business model to their managers to operationalise and provide repeat delivery.

This three-level hierarchical approach has a degree of synergy with other research on the links between corporate entrepreneurship and innovation systems (McFadzean et al., 2005; Shaw et al., 2005), and innovation systems and business model changes (Pateli & Giaglis, 2005). See Fig. 8.3 below.

Reviewing the learning process by which entrepreneurs rationalise the analysis and evaluation of these business opportunities and threats, their potential influence on the enterprise, and therefore any subsequent changes in the underlying business process models fits with the 4I framework of organisational learning (Crossan, 1999).

Entrepreneurs exhibit these four stages of learning:

1. Intuiting: recognition of an opportunity and threat, and its possibilities to change things positively or negatively. For entrepreneurs this happens at the initial, Level 1, stage of evaluating and validating their vales and purposes, and therefore those of the enterprise.

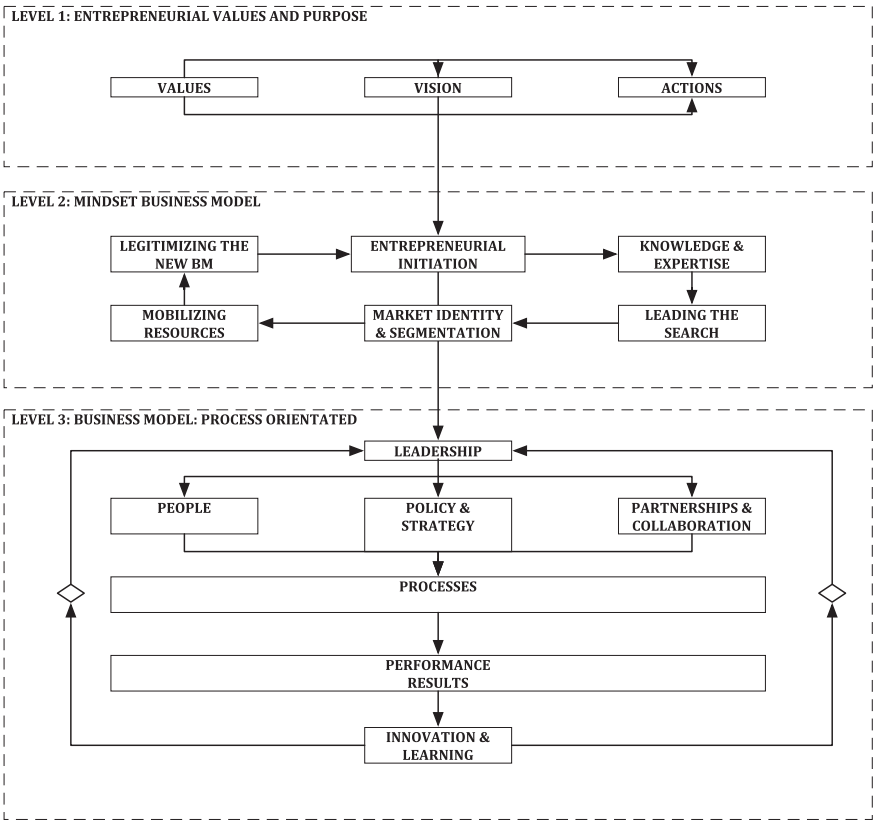

Fig. 8.3 Three-level hierarchical approach to understanding and interpreting enterprise challenges

2. Interpreting: the explaining of this insight to oneself. Again part of the Level 1 stage of learning.
3. Integrating: developing a shared understanding and potential collective action to realise the full potential of the business opportunity and threat. This corresponds to the Level 2 stage for the entrepreneur: when their values and purpose change they instigate a mindset business model re-evaluation and start to bring people and tools in to legitimise the potential product and service changes.
4. Institutionalising: the development of a rationalised business, existing or new, by which to sustain collective actions. Last, the entrepreneurs will delegate the task of operationalising the new business model to their trusted managers, Level 3.

8.7 Future Research

The initial findings from the research study provide an emergent learning framework that could help other enterprises analyse and evaluate their own opportunities and threats. The potential value of this as both a tool and also a sense-making

exercise warrants further study. There are three factors that need further research: entrepreneurial types, organisational resources (in particular, the evaluation of the different gatekeepers and their relative power within the enterprise) and marketplace dynamics. The authors have already engaged on the next part of this research which is to conduct a research survey using the emergent learning framework.

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Chapter 9
Does Exposure to Ideas About "Morally Leading Change" Make a Difference in Students' Leadership Aspirations?

Michael K. McCuddy

9.1 Introduction

A fundamental objective of contemporary business education is the preparation of students to effectively deal with the many different challenges they will encounter in their future business careers. Two of the more important challenges that students will face involve leading change and promoting ethical conduct in business. This chapter discusses the nature and ramifications of these two challenges for future business leaders and then examines one approach for helping students develop their capacities for morally leading change in business organizations and in society.

Specifically, this chapter reports on a quasi-experimental exploration (Campbell & Stanley, 1963, pp. 53–54) of an educational module that was introduced during the spring 2008 semester in three sections of a third-year undergraduate course in "Management and Organizational Behavior" taught at an American university. The basic approach was to explore whether exposing students to ideas and concepts on the topic of morally leading change would affect, in any demonstrable way, their conceptions of the kind of leader they hope to become. Specifically, the basic research question was: "Will students be more likely to describe their leadership aspirations in terms of ethics and change subsequent to being exposed to such material in a classroom environment?"

9.2 The Moral/Ethical Context of Change

In this section, the context that underlies the preceding research question is explored through a brief discussion of relevant literature and then the need for appropriate educational interventions is addressed.

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9.2.1 The Moral/Ethical Context of Change: A Brief Literature Synopsis

In a commencement address delivered at the A. B. Freeman School of Business of Tulane University in New Orleans, Louisiana, USA, in May 1987, and subsequently reprinted in *Executive Speeches*, Willard C. Butcher, then CEO of Chase, a prominent United States banking institution, maintained that "... ethical behavior and effective leadership are intertwined and inseparable. In fact, meaningful leadership – leadership that in the long run counts for something – cannot be accompanied by moral collapse. The leader who acts ethically will ultimately succeed. The leader who lacks in ethical foundation will ultimately fail" (Butcher, 1994, p. 27). He further asserts that the principle cause of ethical failures in the United States "is the maelstrom of change taking place in society. Rarely have times been more turbulent. In periods of upheaval, people [are] cut loose from their moorings ... and thus lose their bearings" (Butcher, 1994, p. 27).

Two decades later, as both the magnitude and rapidity of change have intensified, the need for grounding change leadership in ethics remains an immutable, though often violated, requisite. As the organizational scholar Kim Cameron (2008, p. 12) states, "We live in a dynamic, turbulent, high-velocity world. Unfortunately, when everything is changing, it becomes impossible to lead change. Without a stable, unchanging reference point, direction and progress become indeterminate. ... In high-pressure, high-velocity environments, some leaders make up their own rules. They end up cheating, lying, waffling, or claiming naiveté, not only because it's to their economic advantage, but because they create their own rationale for what's acceptable. ... [This is] why ethics, standards, rules, and social responsibility are vital in governing behavior." Further, Caldwell (2005, pp. 105–106) observes, "exploration of the ethics of professional conduct and consultancy practice are increasingly required in the face of the recurrent convergence of technocratic expertise and managerial interests and the countervailing need to include broader constituencies of employees and other stakeholders in achieving successful organizational change."

Rubenstein (2005, p. 350) contends that a "leadership revolution" is occurring not only in the United States but throughout the world that focuses on, among other things, a clear understanding of "the special aspects of ethical leadership and special demands of leaders of change." Cameron believes that effective leaders in the 21st century must have a well-developed sense of moral values and possess personal virtues that allow effective change to occur (cited in Doh, 2003). Sama and Shoaf (2008, p. 44) argue for "ethical leadership that embodies moral intelligence and creates moral community through shared values, reciprocity, integrity, transparency, and consistent adherence to principles."

Dealing with change, and hopefully doing it effectively, is a challenge that engulfs the global economy during the last years of the first decade of the 21st century. This challenge of change impacts not only leaders of companies and governments, but also individuals of every socio-economic strata and political persuasion. Given the sweeping impact of change on humanity, perhaps all of us would

be well served to heed the advice of two of the world's luminaries – Confucius and Mahatma Gandhi – regarding the nature of change and each human being's role in fostering change:

> To put the world in order, we must first put the nation in order; to put the nation in order, we must put the family in order; to put the family in order, we must cultivate our personal life; and to cultivate our personal life, we must first set our hearts straight – Confucius, BC 551–479.
>
> As human beings, our greatness lies not so much in being able to remake the world – that is the myth of the atomic age – as in being able to remake ourselves – Mahatma Gandhi, 1869–1948.
>
> You must be the change you wish to see in the world – Mahatma Gandhi, 1869–1948.

In short, change and change leadership starts with the individual. Change outside of ourselves must be preceded by change within ourselves.

Change is a phenomenon that each human being must address and that every human being can lead – even if only in a small way – at some point in their lives. The change leadership may be in government or industry or major charitable causes, to name but a few, or it may be within one's work group or neighborhood or family. In whatever venue change takes place, it should be conducted with a view toward the moral implications of change. In the practice of change leadership, an individual human acting alone but acting morally can have a profound effect. Indeed, as a notable American author once opined,

> The whole course of human history may depend on a change of heart in one solitary and even humble individual – for it is in the solitary mind and soul of the individual that the battle between good and evil is waged and ultimately won or lost – M. Scott Peck, 1936–2005.

"Collectively, these four quotes – three from world luminaries, one from a notable American author – emphasize that human change in this world ultimately depends on individual effort and initiative, and that for change to have a powerful, positive impact, individual effort and initiative must ardently embrace that which is good, fair, right, and just. Put in a more abstract way, both changing oneself and leading change in the broader communities of which one is a member depend upon one's Fundamental Moral Orientation and the decisions and actions resulting therefrom. Every person's approach to living life and changing life is very much rooted in his or her moral orientation of pursuing self-interest versus serving others" (McCuddy, 2008, p. 10). Indeed, change leadership and morality are inextricably intertwined – and effective educational preparation for any profession or occupation as well as for societal citizenship must address both in a meaningful fashion.

9.2.2 The Moral/Ethical Context of Change: The Need for Appropriate Education

Crane (2004, p. 149) cites "a recent Aspen Institute study of graduates of the top business schools in the United States [which] found that business . . . school education not only fails to improve the moral character of students but actually weakens

it." Due to this dismal situation, Crane (2004) unequivocally asserts that teaching business ethics is an imperative for business schools. But teaching ethics is not just an imperative for business schools. Education is a powerful and consistent force in the development of moral judgment in people (McCabe, Dukerich, & Dutton, 1991) – regardless of specific academic discipline.

Based on their review of relevant literature, Elmuti Minnis, and Abebe (2005, p. 1019) conclude that "[m]ost scholars suggest that due to continuous changes in the speed of the economy and technology, as well as the speed of change, managers and leaders who lead modern establishments need to be engaged in a constant learning and education process" – an ongoing learning and education process that involves ethics training (Elmuti, Minnis, & Abebe, 2005, p. 1023). Scholars and practitioners have campaigned for ethics being an important element of education in general (e.g., McCabe, Dukerich, & Dutton, 1991) and business school education in particular (Adler, 2002; Crane, 2004; Evans & Marcal, 2005; McAlister, 2004; McLean & Elkind, 2003). Accrediting agencies have called for the infusion of ethics into business education (e.g., the Association to Advance Collegiate Schools of Business – International) as well as instruction in other disciplines such as engineering (e.g., the Accreditation Board for Engineering and Technology, in the United States) and teacher education (e.g., the National Education Association, also in the United States). Without question, understanding and embracing ethics is a critical step in the journey of preparing for any career; and in the modern world those careers are increasingly impacted by and must deal with change.

9.3 Methodology

9.3.1 Basic Approach

In the spring 2008 academic term, the author taught three sections of an undergraduate course – Management and Organizational Behavior – that he had not taught in the preceding 3 years. Although slotted in the third-year curriculum, some students, who are majoring in business and meet the course prerequisites, actually take the course during the second semester of the second year; and some students, who are pursuing a business minor, take the course as late as the last semester of the fourth year. The course meets twice a week for 15 weeks, with each class session lasting 75 minutes.

In preparing to teach this course, the professor decided to include an instructional module on the topic of *morally leading change*. The instructional module was utilized in two successive class periods. In order to ascertain, in some reasonable way, the impact and effectiveness of the instructional module, the three sections were set up in a quasi-experimental format, as described below in Sections 9.3.1.1 and 9.3.1.2. The quasi-experimental design was a separate sample pretest–posttest design (Campbell & Stanley, 1963, pp. 53–54).

The *morally leading change module* consisted of two 75-minute class periods wherein the students initially completed a self-assessment instrument and then par-

ticipated in a lecture/discussion about morally leading change. The self-assessment instrument, which took about 25 minutes of the first session to complete, focused on the students' Fundamental Moral Orientation and the values and action principles that they employed with respect to their personal lives and present (or future) work lives. The lecture/discussion material was clustered around three topical questions: (1) How are managers, leaders, and organizational culture connected? (2) How do change leaders help the organization proactively adapt to the range of demands and need for flexibility the organization encounters from its external environment? (3) How are leadership and change leadership linked to workplace morality?

The students were required to write a 500-word essay on the topic of "What kind of leader do I want to become?" The content of each essay was analyzed by five independent raters with respect to how much the student emphasized each of 12 different leadership attributes and characteristics in his or her discussion of the assigned topic. The ultimate purpose of the independent ratings was to provide evaluative data for assessing the impact, if any, of the *morally leading change module* on students' conceptions of themselves as future leaders.

Every student in each of the three sections of the course was required to submit an essay. Enrollments in the two course sections that were exposed to quasi-experimental sequence 1 (see below) were 23 students and 24 students, respectively. Enrollment was 24 students in the one section of the course that experienced quasi-experimental sequence 2 (see below). Across the three sections, five students either did not submit an essay or did not submit it at the required time as specified in the quasi-experimental design and were therefore excluded from the database used herein. In addition, 12 students who failed to attend either one or both of the class sessions of the *morally leading change module* were also excluded from the database. Thus, the results of this study are based on all students who were enrolled in the Management and Organizational Behavior course during the spring 2008 term and who attended both sessions of the instructional module and submitted the essay on time as required.

9.3.1.1 Quasi-experimental Sequence 1

After completing the self-assessment questionnaire, students in two of the sections of the course ($n = 33$) were exposed to the *morally leading change module*. Upon completion of the module, these students wrote their leadership essays. In summary, the event sequence was as follows: (1) the students completed the self-assessment instrument; (2) the students experienced the *morally leading change module*; and (3) the students wrote and submitted their leadership essays. For convenience, this quasi-experimental treatment sequence was labeled the *after group*.

9.3.1.2 Quasi-experimental Sequence 2

Students in the third section of the course ($n = 21$) were exposed to the same materials and activities as were the students in experimental sequence 1 but in a

different order. The alternate sequence of events was as follows: (1) the students wrote and submitted the leadership essay prior to the first of the two classes; (2) the students completed the self-assessment instrument; and (3) the students experienced the *morally leading change module*. Quasi-experimental sequence 2 was labeled the *before group*.

9.3.2 Self-Assessment Survey

In both the *before group* and the *after group*, the self-assessment questionnaire was administered in class prior to execution of the *morally leading change module*. The purpose of the survey was to provide a reasonable assessment of the two groups' similarities and differences on selected leadership-relevant measures prior to experiencing the module. Should the *before and after* groups differ significantly with respect to these relevant measures, those differences could be employed to help explain any differences that are found subsequently in the content analysis of the leadership essays. The ideal situation would be to find no significant differences between the groups on any of the pretest self-assessment measures. Barring that, as few differences as possible in the pretest measures is the next most desirable state. The lack of significant differences between the pretest measurements of the groups permits the attribution of a causal effect to the *morally leading change module* for any differences that subsequently are found in the targeted content of the students' leadership essays.

The self-assessment survey consisted of three parts: two ethics-related parts and one part that pertained to values and action principles employed by the students in their personal lives and work lives. Part I (see questions 1–4 in Appendix) and Part III (see questions 48–51 in Appendix) addressed the students' Fundamental Moral Orientations (FMOs) of selfishness vs. self-fullness vs. selflessness (see McCuddy, 2005, for an explanation of these FMOs). The Fundamental Moral Orientation reflects a person's propensity to act selfishly, self-fully, or selflessly in the decisions made and actions taken in personal life and in professional life. The two parts differed with respect to the approach used to measure the FMOs; Part I was a more indirect measure of the FMOs, whereas Part III was a direct measure of them. Part II of the self-assessment survey asked students to indicate how important 43 different values and action principles were to them in their personal lives and present (or future) work lives (see questions 5–47 in Appendix). The items and response scale for Part II of the questionnaire were adapted from a copyrighted survey developed by Shimon L. Dolan and Salvatore Garcia; permission to adapt the copyrighted survey was granted through Ana Martins, University of Glamorgan, Wales, UK, who had used the Dolan/Garcia survey in her own work. The labels on the original scale were altered to more closely approximate an interval scale of measurement (for an explanation of this approach, see Bass, Cascio, & O'Connor, 1974, p. 319).

In addition to the three major parts of the survey, students were asked to provide their age and gender for sample description purposes.

9.3.3 Leadership Essay Requirements

As indicated above, the students were required to write a 500-word essay addressing the question "What kind of leader do I want to become?" The students were not given any guidance or suggestions with regard to the *specific content* of their essays. However, they were instructed to think seriously about the topic and to write about their hopes and aspirations as future leaders – what they hoped to become, not what the professor in the course, the student's friends or parents, or anyone else might expect of them or hope for them. The purpose of this general directive was to help ensure that students were thinking in terms of personal application rather than generalized expectations and that the content of the essays would be less susceptible to being biased by the professor's expectations (i.e., minimizing and hopefully eliminating any experimenter expectancy effect).

Although the professor in the course wished to eventually ascertain whether the morally leading change instructional module had any effect on the content of the leadership essays, he graded the essays without regard to the students capturing any specific content from the module. Instead, the essays were graded on the basis of the following three criteria:

Content domain: Have you clearly described the type of leader you wish to become? Is there a reasonable explanation of why this leadership type is important to you? Have you identified the key characteristics of your desired leadership type? Is there a reasonable explanation of why you consider these characteristics to be important to you?

Critical thought and depth of thought: Is there evidence of serious reflection regarding the type of leader you wish to become? Is there evidence of sound thinking or superficial thinking in your analysis and writing? Does your analysis reveal internally consistent thinking or does your analysis indicate disjointed and inconsistent thinking?

Presentation: Is the paper articulate and well written? Is it readable? Concise? Interesting? Free of grammar, punctuation, and spelling errors?

With respect to the research project, the professor left to other individuals the responsibility of assessing the extent to which the students' essays reflected leadership attributes and characteristics that would relate to the ideas and concepts from the *morally leading change module*. Indeed, the assessment criteria were not developed, nor was the recruiting of raters completed, until approximately 2 months after the spring 2008 term ended. This too was intended to help minimize, if not eliminate, any experimenter expectancy effects.

9.3.4 Assessment of Content of Leadership Essays

The leadership essays were evaluated by a group of independent raters. Twelve different leadership attributes or characteristics were assessed by the raters. Five

of the items captured *general leadership attributes and characteristics*, whereas the remaining seven items pertained to *ethical change leadership attributes and characteristics*.

9.3.4.1 Independent Raters

Five individuals – three females and two males – who had no contact with the students nor any exposure to the content of the *morally leading change module* were recruited to serve as independent raters of the leadership essays. The original research plan was to have two raters – one female and one male – in each of three broad age groups: college/early career, mid-career, and late career/retirement. Unfortunately, a male volunteer in the late career/retirement group could not be secured. Each rater voluntarily contributed his/her time without any monetary compensation. Between 10 and 12 hours of time were contributed by each rater. Key demographic characteristics of the raters are presented in Table 9.1.

Table 9.1 Key demographic characteristics of raters

Rater	Gender	Age	Occupation
1	Female	18	College student
2	Male	22	Salesman, retail sales
3	Female	38	Manager, retail sales
4	Male	37	Factory worker
5	Female	60	Homemaker

The group of raters was specifically chosen because they did not have any previous academic exposure to the concepts and ideas addressed in the *morally leading change module*. In addition, the raters were blind with respect to which set of essays represented the *before group* and which represented the *after group*. These two procedures were intended to minimize, if not eliminate, the possibility that the raters would deliberately provide ratings that would be confirmatory (or disconfirmatory) of the impact of the *morally leading change module*.

Two raters – one male and one female – evaluated the leadership essays in the following order: *before group* first, then the *after group*; however, as mentioned above, the raters did not know which group was which. The other three raters – one male and two females – evaluated the leadership essays in the reverse sequence: *after group* first, then *before group*. The purpose of the two sequences was to minimize the impact of any order effect on the ratings.

9.3.4.2 Assessment Criteria

The raters were instructed to evaluate each essay in terms of the extent to which the student emphasized each of the leadership attributes and characteristics (i.e., assessment criteria) described in Table 9.2. Five of the assessment criteria (AC-1 through AC-5) focus on *general leadership attributes and characteristics*. These criteria reflect common-sense knowledge about leadership; they were also ideas and

Table 9.2 Assessment criteria used by raters to evaluate leadership essays

Assessment category	Assessment criterion	To what extent does the student emphasize the following leadership attribute or characteristics in his/her essay?
General leadership attributes and characteristics	AC-1	Being concerned about defining and organizing work relationships and roles, as well as establishing clear patterns of organization, communication, and ways of getting things done. [This criterion was adapted from Nelson and Quick (2006, p. 390), which was the text used in the course.]
	AC-2	Being concerned about nurturing friendly, warm working relationships, as well as encouraging mutual trust and interpersonal respect within the work unit. [This criterion was adapted from Nelson and Quick (2006, p. 390), which was the text used in the course.]
	AC-3	Ensuring that the organization's goals are achieved.
	AC-4	Ensuring that my own goals as leader are achieved.
	AC-5	Ensuring that the followers' goals are achieved.
Ethical change leadership attributes and characteristics	AC-6	Having a well-established set of values to guide decisions and actions.
	AC-7	Setting a good example for followers and being an ethical role model for them.
	AC-8	Acting with honesty and integrity.
	AC-9	Incorporating ethics into leadership decisions and actions.
	AC-10	Recognizing that leading in the contemporary world involves dealing with change.
	AC-11	Responding in effective ways to changing, even turbulent, circumstances.
	AC-12	Inspiring and influencing followers to embrace meaningful change.

concepts that had been discussed during the first few classes of the term (and at least three classes prior to commencing the *morally leading change module*). Given the nature of the *general leadership attributes and characteristics* as well as the students' prior exposure to and familiarity with them, it is reasonable to expect that the *before* and *after* groups would not differ significantly from each other on this set of measures. Seven of the assessment criteria (AC-6 through AC-12) pertain to *ethical change leadership attributes and characteristics*. These assessment criteria directly reflect the content of the *morally leading change module*; thus if the module has any demonstrable impact, we would expect the *before* and *after* groups to differ significantly. However, any significant difference might not be exceptionally dramatic because there is an element of common sense embedded in AC-6 to AC-12.

The raters judged the degree of emphasis the students placed on each attribute or characteristic using the following scale: 0 = student places *no emphasis at all* on this criterion; 1 = student places *some emphasis* on this criterion; 2 = student places *a moderate amount of emphasis* on this criterion; 3 = student places *quite a bit of emphasis* on this criterion; 4 = student places *a great amount of emphasis* on this criterion; 5 = student places *an extraordinary amount of emphasis* on this criterion; and 6 = student places *total emphasis* on this criterion. This scale was developed by adapting Bass, Cascio, and O'Connor's (1974, p. 319) methodology for approximating an interval level of measurement for a seven-point scale that measures the amount of a specified phenomenon.

9.4 Results

9.4.1 Sample Characterization

The average age of students in the *before group* was 20.24 years and in the *after group* was 20.64 years. There were 7 (33.3%) females and 14 (66.7%) males in the *before group* and 10 (30.3%) females and 23 (69.7%) males in the *after group*.

9.4.2 Equivalency of Sample Groups

An independent samples *t*-test was applied to the responses of the two groups on each of the questions pertaining to Fundamental Moral Orientations (see Appendix, questions 1–4 for FMO version 1 and questions 48–51 for FMO version 2) and the values and principles affecting the students' personal lives and work lives (see Appendix, questions 5–47 for personal life [column 2] and work life [column 3]).

Prior to performing the *t*-test, preliminary testing of the equality of sample variances was performed with Levene's test. The appropriate *t*-test was used depending on whether the results of the Levene's test indicated equal or unequal variances in the before and after groups for both scales. The *t*-test was performed with the arithmetic mean of the *before group* being subtracted from the arithmetic mean of

Table 9.3 Results regarding equivalency of sample groups on relevant pretest dimensions

Survey questions	*t*-Test results with equal cell variances			*t*-Test results with unequal cell variances		
	t-Statistic	Sig. of *t*	Mean difference	*t*-Statistic	Sig. of *t*	Mean difference
Personal life						
Q15	2.041	0.046	0.368			
Q26	1.680	0.099	0.407			
Q43	1.685	0.098	0.277			
Q45	1.736	0.088	0.537			
Q46	1.852	0.070	0.455			
Work life						
Q15	2.125	0.038	0.398			
Q27				1.029	0.063	0.528
Q43	2.090	0.041	0.403			
Q45	3.027	0.004	0.922			
Q46				2.667	0.024	0.762
FMO version 2						
Q50	1.823	0.074	0.918			

A significance level of $p \leq 0.10$ was used since this project represents exploratory research. A significance level of $p \leq 0.10$ rather than $p \leq 0.05$ is commonly used in exploratory research.

the *after group*. Thus, a significant *positive difference* indicated that the measured phenomenon in the *after group* was *higher* than in the *before group*. On the other hand, a significant *negative difference* indicated that the measured phenomenon in the *after group* was *lower* than in the *before group*.

The results of the *t*-tests indicate that the two groups differ significantly from each other ($p < 0.10$) with respect to only 5 of the 43 personal life values items, 5 of the 43 work life values statements, and 1 of the 8 measurements of their fundamental moral orientations (the 8 measurements reflect the two FMO versions). These few between-group differences are reported in Table 9.3. On balance, the survey results indicate that, prior to being exposed to the *morally leading change module* and with respect to the purpose of this research, the two groups were essentially equivalent to each other in terms of their Fundamental Moral Orientations and the values and action principles they employ to guide their personal lives and their (present or future) work lives. Given this pretest equivalency between the two groups, one can be more confident that any differences in the content of the students' essays with respect to the specified leadership attributes and characteristics can be linked to the influence of the *morally leading change module*.

9.4.3 Reliability of Leadership Ratings

The reliability of the leadership ratings was gauged through a two-step process. First, for each assessment criterion the degree of consistency among the five raters was ascertained through a novel application of Cronbach's coefficient alpha, a

Table 9.4 Cronbach's alpha for assessment criteria

Assessment category	Assessment criterion	Coefficient alpha
General leadership attributes and characteristics	AC-1	0.682
	AC-2	0.742
	AC-3	0.661
	AC-4	0.373
	AC-5	0.639
Ethical change leadership attributes and characteristics	AC-6	0.628
	AC-7	0.725
	AC-8	0.769
	AC-9	0.779
	AC-10	0.812
	AC-11	0.688
	AC-12	0.685

statistic which measures internal consistency of measurement among a set of variables. For a specific assessment criterion, each rater was treated as separate variable and Cronbach's alpha was computed for the five sets of ratings for that particular criterion. Cronbach's alpha for the 12 assessment criteria are presented in Table 9.4.

Nunnally (1978, p. 245), recommends a threshold level of 0.70 for a solid level of internal consistency reliability. Five of the 12 coefficients in Table 9.4 are above this threshold level. Six of the remaining seven coefficients are between 0.628 and 0.688 and can be considered to be acceptable. Only one assessment criterion (AC-4) has an unacceptable level of 0.373. Therefore, AC-4 is excluded from further analyses.

Once satisfactory inter-rater reliability was established, the second step of the reliability assessment process was initiated. In this step, AC-1, AC-2, AC-3, and AC-5 were combined into a *general leadership attributes and characteristics scale* and AC-6 through AC-12 were combined into an *ethical change leadership attributes and characteristics scale*. Cronbach's alpha was then computed for each of these two scales. For the former scale alpha was 0.705, and for the latter scale it was 0.891. Therefore, both scales have a high degree of internal consistency of measurement.

The *general leadership attributes and characteristics scale* was derived by computing the arithmetic mean of AC-1 AC-2, AC-3, and AC-5. Similarly, the *ethical change leadership attributes and characteristics scale* was calculated as the arithmetic mean of AC-6 through AC-12.

9.4.4 Testing for Differences in the Content of the Leadership Essays

As mentioned above in Section 9.3.4.2, the author predicted significant differences between the *before* and *after* groups on the *ethical change leadership attributes and characteristics scale* but no significant differences between the two groups on

the*general leadership attributes and characteristics scale*. The presence or absence of significant differences between the two groups was determined through an independent samples t-test. Prior to performing the actual t-test, preliminary testing of the equality of sample variances with Levene's test indicated equal variances in the *before and after* groups for both scales. The independent samples t-test was performed with the arithmetic mean of the *before group* being subtracted from the arithmetic mean of the *after group*. Thus, a significant *positive difference* indicated that the measured phenomenon in the *after group* was *higher* than in the *before group*. On the other hand, a significant *negative difference* indicated that the measured phenomenon in the *after group* was *lower* than in the *before group*.

The results of the independent samples t-test revealed that, as predicted, the *before group* and the *after group did not differ* significantly from each other on the *general leadership attributes and characteristics scale* ($t = 0.644,\ df = 52,\ p = 0.522$), but that they *did differ* significantly from each other on the *ethical change leadership attributes and characteristics scale* ($t = 1.985,\ df = 52,\ p = 0.052$). On the *general leadership attributes and characteristics scale* the mean for the *before group* was 1.64 and for the *after group* it was 1.76. On the *ethical change leadership attributes and characteristics scale*, the means were 0.842 and 1.22, respectively, for the *before group* and the *after group*.

9.5 Discussion and Conclusions

Contemporary business education must prepare students to *morally lead change*. The educational intervention reported in this chapter explored the impact of instruction in *morally leading change* on students' leadership aspirations. The quasi-experiment was designed to provide an answer to the question: "Will students be more likely to describe their leadership aspirations in terms of ethics and change subsequent to being exposed to such material in a classroom environment?" The short answer to this question is YES! The longer answer is that the usage of ethics-oriented and change-oriented concepts by students when writing about their leadership aspirations was significantly higher at $p = 0.052$ in the *after group* than in the *before group*. Thus, the *morally leading change module* appears to have had the intended instructional impact.

Overall, the results indicate that the students who were exposed to the *morally leading change instructional module* before writing their leadership essays were more inclined to describe their future leadership aspirations in terms that reflected a concern for ethical change leadership. However, the average score on the *ethical change leadership attributes and characteristics scale* was only 1.22 – slightly above the scale point of "1 = student places *some emphasis* on this criterion." Interestingly, and not unexpectedly, students in both groups placed slightly more emphasis on *general leadership attributes and characteristics* (Means = 1.64 and 1.76) than they did on the *ethical change leadership attributes and characteristics*.

The means of 1.64 and 1.76 were closer to the scale value of "2 = student places *a moderate amount of emphasis* on this criterion."

The meaning of the magnitude of the two sets of scale means – and in particular of the *ethical change leadership attributes and characteristics scale* means – could be interpreted in several ways. First, the two scales capture only targeted aspects of the full range of leadership attributes and characteristics. Thus, placing some emphasis or a moderate amount of emphasis on these targeted aspects allows for the possibility of students emphasizing other non-targeted leadership attributes and characteristics in their leadership essays. Second, the particular leadership attributes and characteristics targeted in this study may not have been all that important to this sample of students. Third, some students may not have given much serious thought to their future leadership roles, even when asked (required) to do so in a specific assignment. Indeed, the anecdotal observations that all of the raters had with regard to some of the essays reinforce this perspective; and the professor's grading of the essays using the criteria identified above in Section 9.3.3 corroborates it as well. Fourth, although some of these students have leadership experience in student organizations and on athletic teams, such experience does not necessarily rise to the level of the challenges posed by ethics and change in the workplace. Fifth, some students may not be sufficiently in tune with the ethical challenges and the changeability of the business environment they will face in their future careers. Interestingly, anecdotal comments made by the three older raters expressed a belief/feeling that some of these students were in for a rude awakening when they finally face the demands of the proverbial "real world." Sixth, from an assessment perspective, raters who were specifically trained in the content of the *morally leading change module* might have provided different ratings that may have captured the more nuanced aspects of the module's content.

Although the *morally leading change module* had an impact in the *after group*, that impact apparently was not particularly broad or deep. Some students were affected positively – but were enough students affected positively? And although there was a demonstrable effect in the quasi-experiment, that effect may only be short term. One must always be concerned about the sustainability of any treatment effect. For any educational technique or approach to be truly effective and meaningful, the impact should be long-lasting. Once these students are in leadership positions in the workplace, will they actually be more attuned to the organizational challenges of *morally leading change*?

As with any study, this one is not without its limitations. Perhaps the greatest limitation is that the content of the essays was evaluated only with respect to *general leadership attributes and characteristics* and *ethical change leadership attributes and characteristics*. The content of the leadership essays could be assessed with respect to other leadership concepts such as transactional leadership, transformational leadership, use of power and influence, leadership effectiveness, establishing a vision, creating value, and building relationships with followers, to name several possibilities. Additionally, the content could be analyzed in terms of specific change leadership concepts such as strategies and tactics for change, resistance to change, and motivating/stimulating change, among others. Finally,

the content could be assessed with respect to specific ethics concepts such as moral orientation, commitment to fair and just treatment of people, stewardship and sustainability.

Another limitation of the study is that it focused on only three sections of one course taught by one instructor. To strengthen the external validity (or generalizability) of the results, this educational intervention should be repeated with other professors who teach other types of courses that incorporate the topics of ethics and change leadership.

Even with these limitations, the results of this initial quasi-experiment are encouraging. In general, the *morally leading change module* had a demonstrable – though not exceptionally dramatic – impact on the students' conceptions of themselves as future leaders. As would be expected, some students were influenced to a greater extent than were others; or at least, they were more open to considering, if not embracing, the ideas about *morally leading change*. Admittedly, it would have been gratifying for the module to have produced an even greater effect, but to have any effect in such a short time frame is encouraging. Of course, the challenge is to strengthen and sustain the impact of ideas about *morally leading change* over the long term – and for a greater number of people.

Appendix: Assessment of Leadership Perspectives and Potential

This self-assessment questionnaire has three parts. Each part has separate instructions. Please read the instructions and respond accordingly. There is no right or wrong answer for any question. The best answer for each question is the one that truly represents how you see yourself.

Part I

Part I of this self-assessment questionnaire asks about the decision situations you have dealt with or expect to deal with in your personal life and your work life. Each question has a 9-point response scale. Only the two end-points (1 and 9) and the mid-point (5) have descriptive labels. The numbers between 1 and 5 and between 5 and 9 represent equal increments in the magnitude of the phenomenon being measured. The scales for questions 1 and 3 are slightly different from the scales for questions 2 and 4.

1. Think about the decision situations that you have faced in the *past 1–3 years* in your personal life. Circle the number on the following scale that best represents how you have typically dealt with these *personal* decision situations.

1 = I always pursue my own interests and satisfy my own needs

5 = I try to balance my own interests and needs against others' interests and needs

9 = I always focus on others' interests and satisfy others' needs

1 2 3 4 5 6 7 8 9

2. Now, please indicate by circling the appropriate number on the 9-scale below, how you expect to deal with *personal* decision situations in the *next 1 to 3 years*.

1 = I will always pursue my own interests and satisfy my own needs

5 = I will try to balance my own interests and needs against others' interests and needs

9 = I will always focus on others' interests and satisfy others' needs

1 2 3 4 5 6 7 8 9

3. Think about the jobs – part-time or full-time, during the summer months or during the academic year – that you have had in the *past 1 to 3 years*. Circle the number on the following scale that best represents how you have typically dealt with these *work-related* decision situations.

1 = I always pursue my own interests and satisfy my own needs

5 = I try to balance my own interests and needs against others' interests and needs

9 = I always focus on others' interests and satisfy others' needs

1 2 3 4 5 6 7 8 9

4. Now, please indicate by circling the appropriate number on the scale below, how you expect to deal with *work-related* decision situations in the *next 1–3 years*.

1 = I will always pursue my own interests and satisfy my own needs

5 = I will try to balance my own interests and needs against others' interests and needs

9 = I will always focus on others' interests and satisfy others' needs

1 2 3 4 5 6 7 8 9

Part II

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In reflecting over the values below, think about work and life in the 21st century. To what extent do you believe each of the values will be important to your *personal life* and in your *professional work life*? For each questionnaire item, circle the number on the response scale that best represents how important you think the value is for you in your personal life and your present (or future) work life. The response scale should be interpreted as 0 = not important at all; 1 = slightly important; 2 = important to some degree; 3 = moderately important; 4 = very important; and 5 = extremely important.

Values and action principles which really affect and influence my everyday life. . .

	My *personal* life	My present (or future) *work* life
5. Happiness	0 1 2 3 4 5	0 1 2 3 4 5
6. Love – sensitivity	0 1 2 3 4 5	0 1 2 3 4 5
7. Open-mindedness	0 1 2 3 4 5	0 1 2 3 4 5
8. Continuous practical Learning	0 1 2 3 4 5	0 1 2 3 4 5
9. Harmony – aesthetics	0 1 2 3 4 5	0 1 2 3 4 5
10. Adventure – bravery	0 1 2 3 4 5	0 1 2 3 4 5
11. Friendliness	0 1 2 3 4 5	0 1 2 3 4 5
12. Coherence	0 1 2 3 4 5	0 1 2 3 4 5
13. Individual competitiveness	0 1 2 3 4 5	0 1 2 3 4 5
14. Effective communication	0 1 2 3 4 5	0 1 2 3 4 5

	My *personal* life	My present (or future) *work* life
15. Confidence ("rely on")	0 1 2 3 4 5	0 1 2 3 4 5
16. Collaboration – companionship	0 1 2 3 4 5	0 1 2 3 4 5
17. Family care	0 1 2 3 4 5	0 1 2 3 4 5
18. Money – material survival	0 1 2 3 4 5	0 1 2 3 4 5
19. Emotional enjoyment	0 1 2 3 4 5	0 1 2 3 4 5
20. Results efficiency	0 1 2 3 4 5	0 1 2 3 4 5
21. Emotional empathy	0 1 2 3 4 5	0 1 2 3 4 5
22. Work-life balance	0 1 2 3 4 5	0 1 2 3 4 5
23. Professional ethics	0 1 2 3 4 5	0 1 2 3 4 5
24. Happiness (search for)	0 1 2 3 4 5	0 1 2 3 4 5
25. Adaptive flexibility	0 1 2 3 4 5	0 1 2 3 4 5
26. Generosity – sharing	0 1 2 3 4 5	0 1 2 3 4 5
27. Dignity/Humbleness	0 1 2 3 4 5	0 1 2 3 4 5
28. Utopia – ideal	0 1 2 3 4 5	0 1 2 3 4 5
29. Equality (no discrimination)	0 1 2 3 4 5	0 1 2 3 4 5
30. Imagination – creativity	0 1 2 3 4 5	0 1 2 3 4 5
31. Integrity	0 1 2 3 4 5	0 1 2 3 4 5
32. Justice – social responsibility	0 1 2 3 4 5	0 1 2 3 4 5
33. Person at the center	0 1 2 3 4 5	0 1 2 3 4 5
34. Freedom – initiative	0 1 2 3 4 5	0 1 2 3 4 5
35. Order – organization	0 1 2 3 4 5	0 1 2 3 4 5
36. Passion – illusion	0 1 2 3 4 5	0 1 2 3 4 5
37. Pragmatism – realism	0 1 2 3 4 5	0 1 2 3 4 5
38. Technical professionalism	0 1 2 3 4 5	0 1 2 3 4 5
39. Respect for people	0 1 2 3 4 5	0 1 2 3 4 5
40. Respect for the environment	0 1 2 3 4 5	0 1 2 3 4 5
41. Sacrifice – austerity	0 1 2 3 4 5	0 1 2 3 4 5
42. Health	0 1 2 3 4 5	0 1 2 3 4 5
43. Security – prudence	0 1 2 3 4 5	0 1 2 3 4 5
44. Serenity	0 1 2 3 4 5	0 1 2 3 4 5
45. Process simplification	0 1 2 3 4 5	0 1 2 3 4 5
46. Transparency – sincerity	0 1 2 3 4 5	0 1 2 3 4 5
47. Patience – tenacity	0 1 2 3 4 5	0 1 2 3 4 5

Part III

Consider the following three descriptions of a person's fundamental ethical orientation.

Selfishness involves pursuing one's self-interest and seeking to maximize one's utility. Selfishness exists in varying degrees, ranging from extreme greed and exploitation of others to merely seeking satisfaction, joy, and happiness in the conduct of one's life.

Selflessness involves sharing for the common good. Selflessness exists in varying degrees, ranging from helping other individuals in small ways to total dedication to serving others.

Self-fullness involves the simultaneous pursuit of reasonable self-interest and reasonable concern for the common good. Self-fullness exists in varying combinations of pursuing self-interest and serving others.

On the 9-point scale following each question in this section, circle the number that best describes how you see yourself relative to the above selfishness, self-fullness, and selflessness descriptions

48. How would you describe the fundamental moral orientation that you follow in *your personal life at the present time*?

1	2	3	4	5	6	7	8	9
Definitely Selfish				Definitely Self-full			Definitely Selfless	

49. How would you describe the fundamental moral orientation that you would like to follow in *your personal life in the next 1–3 years*?

1	2	3	4	5	6	7	8	9
Definitely Selfish				Definitely Self-full			Definitely Selfless	

50. How would you describe the fundamental moral orientation that you follow in *your work life at the present time*?

1	2	3	4	5	6	7	8	9
Definitely Selfish				Definitely Self-full			Definitely Selfless	

51. How would you describe the fundamental moral orientation that you would like to follow in *your work life in the next 1 to 3 years*?

1	2	3	4	5	6	7	8	9
Definitely Selfish				Definitely Self-full			Definitely Selfless	

For classification purposes please provide the following information.

52. Age _____

53. Gender: F M

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Chapter 10
Making Sense of Experiential Learning in Management Education

Davar Rezania and Leslie Blyth

10.1 Introduction

This chapter is about how individual students and groups of students make sense of the experiential exercise they engage in during a classroom training session. It takes as its starting point the wealth of literature on experiential learning, where learning is viewed as a process of experience, reflection, abstraction, and action. Using two cases, it draws on sensemaking theory to place the experiential learning process in a wider context in which individuals and groups author stories which help them to connect themselves to what they consider to be desirable ends, think well of themselves in moral terms, and succeed in their society.

10.1.1 Experiential Learning in Management education

The contemporary changing face of work presents challenges and opportunities for employees and organizations (Walton & Susman, 1987). Part of this challenge is to organize work around teams and projects. Likewise, this rapidly changing technology, increasing global competition, and greater uncertainty and predictability increases the need to be more responsive and flexible than in times past. Managerial Learning is more than ever crucial to the success of projects and organizations.

The context of managerial practice is bounded by particular problems encountered in everyday activities (Mintzberg & Gosling, 2002). As such, *managerial learning* consists of the development of a deep understanding of the problems and tasks that arise in particular situations and their particular solutions (Stein, 2001; Gosling & Mintzberg, 2006). Thus, learning from experience has become an important method for managerial learning.

Managerial learning from experience (Kolb, 1984) includes four general, but not mutually exclusive, agendas:

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- Experience
- Reflection
- Cognition
- Action

To implement these agendas, many organizations conduct after-event reviews as an effective tool for learning from an experience and to improve their performance (Ellis & Davidi, 2005). Such methods provide learners with an opportunity to analyse their behaviour systematically and to evaluate the contribution of its various components to outcomes. The process is a reflection on the past experience, both successes and failures, that directs learners to understand the specific causes of their successes or failures in order to improve their performance (Ellis & Davidi, 2005).

In the area of team training, many instructional strategies such as cross-training (Blickensderfer et al., 1998), team leader training (Tannenbaum, Smith-Jentsch, & Behson, 1998), self-correction training (Blickensderfer, Cannon-Bowers, & Salas, 1997), and soft skills training (Stevens & Campion, 1994) have focused mainly on helping team members develop their competencies and skills and not on the team as a whole. Likewise, there are those who advocate instructional strategies and systems that focus on the training of the team as a whole (Kozlowski, 1998). The bridge between individual learning and organizational learning involves various forms of social interaction, including story-telling, dialogue and conversation. These processes are essential as they generate potential for action or new behaviour through processing of information (Huber, 1991).

Business schools often employ "experiential learning" (EL) (Kolb, 1984) as a teaching method. One of the main intentions of the experiential learning model is to co-create a socially constructed environment through which students can simultaneously explore and assimilate new ideas through more authentic practice combined with examining how they, as individuals, are learning that new practice. Learning is seen as a "process whereby knowledge is created through the transformation of experience". The core is, therefore, how the learning environment is constructed and sustained by its participants. Kolb's experiential learning theory (ELT) continues to be one of the most influential theories of managerial learning and is considered foundational to many who practice action learning developmental approaches (Kayes, 2002).

Kolb's ELT integrates the four components of managerial learning into a single framework. Sensory information arising from experience (apprehension) and cognitive abstractions (comprehension) are given meaning through reflection (intension) and put to practical application through purposeful behaviour (extension). ELT rests on six assumptions (Kolb, 1984:41):

1. Learning is a process, not an outcome,
2. Learning derives from experience,
3. Learning requires an individual to resolve dialectically opposed demands,
4. Learning is integrative and holistic,
5. Learning requires interplay between a person and the environment,
6. Learning results in knowledge creation.

A widely used method in an EL classroom is to provide students with an experiential exercise. For example, in teaching negotiation, students may engage in negotiation cases to experience various negotiation techniques. After this experience they are asked to write a personal application assignment (PAA) (Osland, Kolb, Rubin, & Turner, 2001).

In a PAA students go through the Kolb learning cycle and describe

Concrete experience: objective description of facts: when, where, who was involved, what happened. And subjective description of feelings, perceptions, and thoughts that occurred during the experience, along with the intentions and behaviour.

Reflective observation: reflection on the experience from points of view of all the major actors: the behaviours observed. Why things happened.

Abstract conceptualization: practical lessons derived from analysing the experience, including possible action steps that can be taken to be more effective. Relating the experience with concepts from class readings or scholarly articles, including application of concepts to the experience.

Active experimentation: identify action steps that are based on what is learned.

Creating a context where learning can take place is central to any training or educational program. This context of an EL classroom is wider than the EL cycle, because the EL exercise is just an event in the flow of circumstances in a classroom or training session. To create this context we need to explore the process learners go through during a training session, not just the EL exercise. This chapter drives from exploring this process which is essential in helping learners to reflect on their learning process and engage in actions to develop their meta-cognitive capacity to learn. This is a response to the current discussion in management education which calls for a study of management as a socially organized and not technically determined activity, focusing on the development of sensemaking and critical thinking capabilities (Perriton & Reynolds, 2004).

Sensemaking refers to the processes of interpretation and meaning creation that we use to reflect on and interpret events and to produce intersubjective accounts (Weick, 1995). As instructors, we work with individuals or groups of students who are making sense of events. For example, we often provide students with an experiential exercise and then ask them to reflect on their experience and report back to us. Such processes trigger sensemaking, which is constituted and revealed in the written and spoken descriptions of their experience (Weick, 1995).

We can view sensemaking processes descriptively. In this chapter we use Weick's (1995) theory of sensemaking in organizations. Weick (1995) explains that sensemaking has the following seven characteristics:

Grounded in identity construction: we construct who we are by the discovery of how and what we think.

Retrospective: we look back over what we said earlier to learn what we think.

Enactive of sensible environments: when we say or do something we construct the environment.

Social: it is a process determined by who socialized us and how we were socialized, and the audience we anticipate to audit the conclusion we reach.

Table 10.1 Comparison of ELT assumptions with sensemaking characteristics

EL assumption (Kolb, 1984)	Sensemaking characteristic (Weick, 1995)
Learning derives from experience	Sensemaking starts with the isolation, conceptual fixation, and labelling of phenomena from the undifferentiated flux of experience
Learning requires an individual to resolve dialectically opposed demands (concrete–abstract, reflection–action)	Sensemaking is about presumption. To make sense is to connect the abstract with the concrete. A series of approximations and attempts help to update the presumptive understanding
Learning requires interplay between a person and environment	Sensemaking is about organizing through communication. It is a social process, based on and revealed in our written and spoken descriptions of our surrounding
Learning results in knowledge creation	Sensemaking is a social process by which tacit knowledge is made more explicit or usable
Learning is integrative and holistic	Sensemaking is retrospective: The bracketing and labeling of a portion of streaming circumstances follows after and names a completed act. The labeling itself fails to capture the dynamics of what is happening. Now represents the more exact science of hindsight, then the unknown future, coming into being

Ongoing: it never stops.

Focused on and by extracted cues: depending on the context and personal dispositions, we single out what we pay attention to.

Driven by plausibility rather than accuracy: we do not need all the information to get on with our projects.

Table 10.1 provides a comparison of experiential learning theory assumptions and descriptive characteristics of sensemaking in organizational life.

Is sensemaking, then, a suitable theory to explain what happens during an EL classroom? In answering this question, analysis of PAAs can be regarded as potentially insightful as they provide a narrative created by those involved. What can we learn from studying these descriptions? Current literature suggests that analysis of texts is an appropriate interpretive lens for understanding organizations and processes of sensemaking (Gephart, 1993; Brown, 2000; Skoldberg, 1994). Narratives serve as a tool for understanding how people make sense of events (Gephart, 1993; Weick, 1995). In particular, they help us to understand how students make sense of their experience and why they choose certain strategies.

10.2 The Method

As this study is explorative in nature and aims to explore and propose research questions we only use two assignments/exercises for our analysis. Purposeful sampling, and specifically theoretical sampling (Glaser & Strauss, 1999), is adopted for this research. Theoretical sampling requires paying attention to theoretical relevance and

purpose. With regard to relevance, it requires the substantive area – in this case use of experiential learning – to be addressed. In this chapter two assignments using experiential learning in management education are presented and analysed.

In terms of similarities, the selected assignments were from educational institutions focusing on business education. In terms of differences, we selected cases with training individuals versus cases focusing on training of teams. The first assignment presents using EL in helping individuals develop their managerial competencies. The second case presents using EL in helping teams to become better teams.

10.2.1 Assignment 1

ORGA 314 is a third-level course for bachelor of commerce students at a business school in Canada. This course examines the theoretical basis of conflict and the sources and nature of conflict in organizational contexts. The course outline states:

> This course is based on experiential learning, meaning that the classroom will be used as a laboratory to create conditions for understanding concepts through experience as well as readings. We will use role playing, exercises, and simulations so students can learn through experience.

One of the exercises students engage in is THE PAKISTANI PRUNES (Lewicki, Barry, & Saunders, 2007). The exercise introduces students to the challenges of integrative bargaining, like the role of trust in such negotiations. In the exercise the parties need to bid for prunes. If they share enough information with each other, they can discover that one party wants the pits and the other the meat of the prune. Hence, they may be able to work together to keep the price of the prunes low.

After the exercise students write a PAA. Appendix presents a PAA, which is written by a student about this exercise.

10.2.1.1 Analysis of the First Assignment

Sensemaking connects the concrete with the abstract and highlights presumptions based on similar experiences, as well as expectations, arguments, and beliefs (Weick, 1995). This PAA demonstrate how the student extracts meaning from this experience retrospectively. In this process, the student uses definition and indicators for integrative negotiation process as tags to label the student's own experiences (extracted cues, Weick, 1995). Such selective observations serve as starting points, from which he can develop a larger sense of what might be occurring (Weick, 1995). The following extract demonstrate this point:

> The meeting took place because I, Dr. Sanchez felt that if the United Nations were to bid head to head against Dr. Wilson's company (which was one of the largest in the U.S.), that we would be horribly beat and have no chance of distributing the prunes to all the farmers in need to survive. As I read into Dr. Sanchez's prior history with negotiations I began to feel increasingly nervous because he was known to be a ruthless negotiator and may not be swayed at choosing to make a profit over the quality of life of others.

To make meaning out of this exercise, he chooses examples which supported the outcome (retrospective, Weick, 1995). He honours what happened during the exercise by justifying the way they negotiated.

> I threatened to release the information that he denied the collaboration with the UN to gain a profit and this was when I finally got his attention and we could start to work out a deal. It was an unethical approach but I gained his attention and therefore was able to negotiate a deal.

In the reflective observation part we see that the student makes assumptions about present events, based on "similar events" from other cases, which are edited in hindsight (Ongoing, (Weick, 1995). " . . .This case is similar to the Pakistani Prunes case because it was clear that the farmers of many drought stricken areas were sure to die along with their wives and children if they were not provided with a considerable food source."

Sensemaking is about presumption. The student connects the abstract with the concrete by a series of approximations and attempts to update the presumptive and plausible understanding:

> During the first part of the negotiation I felt that Dr. Wilson was withholding information from me because he was afraid I might use it to sway his judgement in the negotiation. When I asked Dr. Wilson why he wanted to obtain the prunes he engaged in a deceptive manner "intending to mislead me as his opponent about his own intent and future actions relevant to the negotiations".
>
> Despite all efforts to plead to Dr. Wilson to recognize the personal need vs. the gain of wealth ratio, I was defeated in the sense that I had to hope for access to the prunes in a long term deal rather than short term.

Then, after discussing the experience, he starts to focus on potential action. At this point, he rejects the past (evolutionary sensemaking, Weick, Sutcliffe, & Obstfeld, 2005). "The negotiation would have been entirely different if we would have realized that we both needed different parts of the prunes."

The analysis of this PAA confirms that students do engage in a sensemaking process as a result of being involved in an experiential exercise. Viewed descriptively, we see the same pattern consistent with the theory of sensemaking (Weick, 1995).

10.2.2 Assignment 2

The second assignment involves using experiential learning theory to help student teams develop their team skill. Experiential approaches to team training often utilize self-discrepancy theory to help teams reflect on their actual experience versus their ideal experience of working in a team (see for example Osland et al., 2001, Pg. 447). Distinction between real and ideal experience is important as at the individual-level discrepancies between the actual self-concept and the ideal self-concept are associated with a variety of affects (Higgins, 1999), including the motivation to take action to fill the gap (Ellemers, De Gilder, & Haslam, 2004).

Similar to the individual-level learning cycle proposed by Kolb (1984) around the four modes of learning – an effective methodology to facilitate team-directed learning and development would (1) require teams to engage in a process to develop team level awareness; (2) provide teams with a common language around team interaction; (3) provide feedback on the quality of the current team interaction; and (4) allow for team members to craft concrete action steps, practicing new behaviours to improve the quality of their team interaction and hence team performance.

In this assignment Team Learning and Development Inventory (TLI, Lingham, 2004) is used to help student teams reflect on the discrepancy between their real and ideal interaction space. An example of TLI measurement is provided in Fig. 10.1. The TLI measures the dimensions of interaction space of a team based on the theory of conversational spaces. Baker (2005) propose conversational learning spaces in team interaction, where conversation functions as a process of interpreting and understanding human experience. This theoretical framework is based on five dialectical processes:

1. Apprehension and comprehension: experience and knowing
2. Reflection and action: intention and extension
3. Epistemological discourse and ontological recourse: doing and being
4. Individuality and relationality: inside-out and outside-in
5. Status and solidarity: ranking and linking

In this framework, conversation is determined by needs and emotions in the team and is shaped by the process of human interaction and communication. It emphasizes the primacy of ontological experience within which epistemological discourses are embedded (Baker, 2005).

Figure 10.1 provides an example of TLI measurement. A team's Divergent dimension measures the extent to which they value one another, connect with one another, and feel free to relate as individuals to each other. This dimension includes Involvement, Consideration, Individuality, Relationality, and Solidarity. A team's Convergent dimension measures the extent to which they engage in decision making and feel driven by task-related agendas or directions. It includes Understanding (of the tasks, direction, and purpose), Action (the desire to try or accomplish things), and Task Orientation (completing what is given or following an ascribed procedure or agenda). A team's Shared Leadership dimension measures the extent to which team members share leadership or depend on a single team leader. Finally, a team's Openness dimension measures the extent to which they feel free to return to previously discussed issues, stay with issues, or discuss issues important to any member, without dismissal, ridicule, or judgement.

The student teams that participated in the study were undergraduate students at a business school in Barcelona following a course on Leading Teams and Organizations. Students were divided into teams of five to six members. Each team was given a project to write a report or small book about the content of the course. They filled out the TLI in the middle of the semester, after they had met several times. The results were displayed in the form of TLI mapping and were fed back to each team respectively. Prior to the feedback session team members were provided with a

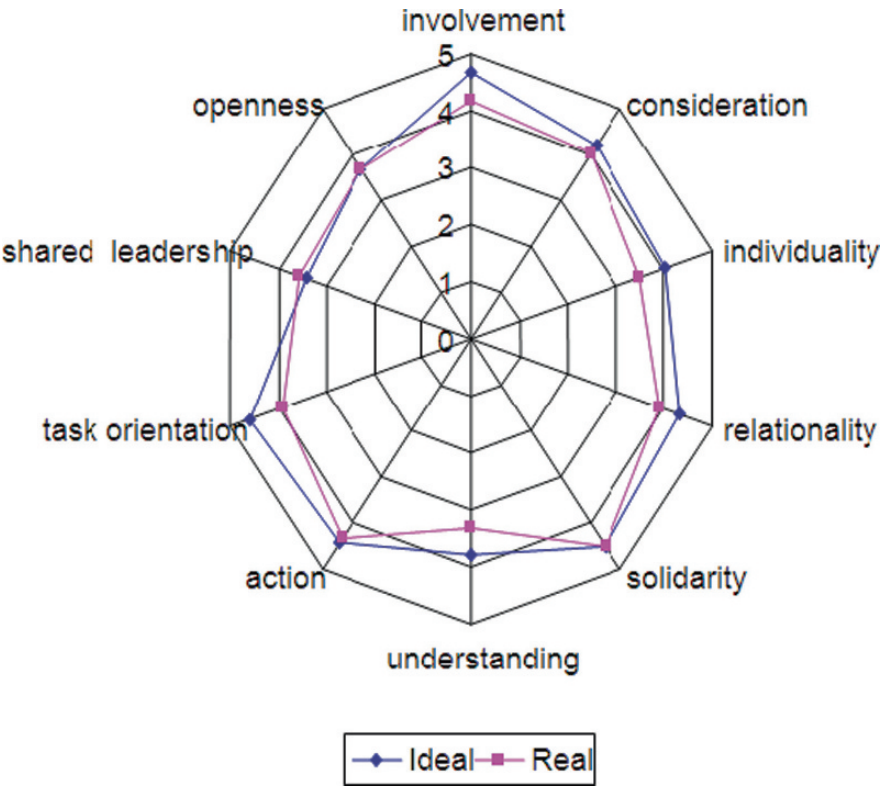

Fig. 10.1 Example of conversational spaces mapping

descriptive interpretation of dimensions of conversational spaces. Teams were asked to write a reflective report about their TLI mapping. Each team submitted a report comprising 10 pages of text.

In Table 10.2 we have extracted statements from students' reports to show that the team was engaged in a sensemaking process (Weick, 1995) as a result of being faced with its mapping of both their real and ideal conversational spaces.

Here again we see that sensemaking evolves around the search for meaning (Weick, 1995). It cannot occur unless a flow of organizational circumstances is turned into words and categories (Weick, 1995). During the discussions that follow the assignment, team members have a means, through their conversational space mapping, to talk about their interaction space. Turning their experience into words is a crucial action that serves as a means through which teams shape conduct. The process is triggered due to the explicit request by the instructor to pay attention to the shapes of the conversational space mappings and the discrepancy between their real and ideal conversational spaces.

Team members wish to know whether the mapping meets their assumptions and beliefs about their team. It relates to the definitions of self, constituted on the basis

Table 10.2 Samples of coded statements

Identity	"We work like this" "This mapping represents us"
Retrospective	"Our team has worked very well. We have been open minded for ideas, good at listening to each other, and I think our members feel comfortable to say what they mean, share their opinions, and to ask questions when any doubt occurred. For a group this big, I would have to say I was sceptical in the beginning of this course, to how productive it could be and fear of many disputes and unnecessary discussions, but I think it has worked out well, and I feel I can be able to work with a group this size again if handled the same way that we decided to do" "Before we came to a result everybody could explain his or her views to certain issues. Then all suggestions were evaluated and the most appropriate one was chosen. Some group members were quieter than the others. This maybe the reason why the real line deviates quite a bit from the ideal line"
Extracted cues	[discussing dimension involvement] ". . . we were not able to get involved so much because all of us have a very tight schedule. If writing this book had been the only task we had, everyone would have shown much more involved and committed"
Enactive	"Propose a review procedure in the future meetings" "We could also ask feedback from other professors"
Sensemaking is ongoing	"We participate in different projects. Many of them have similarities and we do not think how to behave. When we work together we do without much thinking. We know that we need to interact in order to be a good team. We do not think about how to interact, we just do it"
Social	"They agree to meet prior to the next class, specifically to discuss their mapping. . . .they continued discussing their progress together and made commitments to actions that they needed to do in order to catch up with their planning"
Plausibility	"I like the total picture. When we break the interaction space into its part, we lose the feeling of it" ". . . I think if we are going to focus on any of these dimensions, we lose sight of the whole. We sometimes discuss how we work together. Reflecting on this helps to find out why sometimes it is tough to work in this team"

of interaction (identity). Teams see their conversational space mapping as a way to label their undifferentiated flux of experience turned into a conceptual representation of what is going on. Here again we see that students connect the concrete with the abstract and base their arguments or assumptions on "similar experience" from the past (Weick, 1995). A series of approximations and attempts helps them to make sense of the conversational space mapping in retrospect based on plausibility and extracted cues.

They try to understand what each dimension means, whereby the definition and indicators of each dimension serve as tags to label their own experiences (extracted

cues, Weick, 1995). In order to understand what this measurement of gap between the real and ideal dimension means they choose examples which support the TLI measurement results (retrospective, Weick, 1995). They single out observations that serve as a starting point, from which they can develop a larger sense of what may be occurring (extracted cues, Weick, 1995). For example, when discussing dimension Involvement: "It seems like the group would have wanted more involvement than was actually the case. This might be due to all members of the group doing a lot of subjects, in different classes, it is thus hard to get as much involvement as one would have wanted."

Sensemaking is about organizing through communication; it is a social process by which tacit knowledge is made more explicit or usable (Weick, 1995). Students state what they have learnt and what they want to change next time. They extract meaning from previous experiences (retrospective, Weick, 1995). They honour the past, in that they justify the way they work as a team. They then start focusing on potential action after they have discussed the gap in each dimension. Here they reject the past (evolutionary sensemaking, Weick, Sutcliffe, & Obstfeld, 2005).

10.3 Discussion

This chapter started by asking what process students follow in an EL classroom. The process led us to illustrating (and thereby, validating in two empirical contexts) how various sensemaking processes operate during experiential exercises. Viewed descriptively, in both cases the same pattern consistent with the theory of sensemaking (Weick, 1995) was observed. Likewise, it could be seen that in these cases, students think about their relationships with others as well as the rationale for engaging in specific activities. It is a social process in which they share their thinking with others using language. Through this process, they act or propose action or commit to change. Elaborating on this brings the role of sensemaking in management learning to our attention.

Traditionally, management learning as a field of study has been concerned with the educational processes used in business schools and consultancy companies focusing on training of managers. An important element of management development has been about what we value, what we want to be, our goals, and how we change our assumptions. Sensemaking is based on our assumptions about who we are, about our assumptions about right and wrong, about what is important to us, how we share these with others and construct our world. Viewing management learning as derived from sensemaking, leads to defining it in terms of the seven characteristics of sensemaking (Weick, 1995). Thus, we may define management learning *as the process by which students explore what they think about their identity, their role and relationships, how they justify and discuss this with others, as well as how they behave with respect to the fulfilment and achievement of these roles and relationships*. Such a process view of management learning argues for designing and assessing a business curriculum based on these dimensions.

Current debate in management education is focused around the appropriateness of the methods we use to prepare students for their future challenge as managers and leaders of our organizations (Pfeffer, 2007; Donaldson, 2002). This debate is partly influenced by our view of knowledge (Glaser, 1984; Trowler, 1996; Hein, 1991). If we believe that knowledge consists of learning about the context-independent real world, then we organize this world in the most rational way possible and present it to the learners. The objective is not to ask the learner to construct his or her own world (Hein, 1991). The response of business schools to the critics of lack of scientific foundation in management studies in the 1950s was partly to adopt this view (Bennis & O'Toole, 2005).

When we approach management learning as a sensemaking process, we adopt a pedagogy that views knowledge and understanding as constructed by each individual (Palincsar, 1998; Gosling & Mintzberg, 2006). Here we turn our back on any idea of an all-encompassing theory that describes the reality and instead look towards all those learners, each of whom creates his or her own theories to explain the events. Thus, we follow a pedagogy in which we provide learners with the opportunity to experience and construct their own world (Dewey, 1896). Learning is then an active process where the learner experiences the world and constructs meaning out of it (Palincsar, 1998). As a sensemaking process, we explore how students in a classroom approach their identity and legitimize their behaviour (cognitive dimension), the modes of justification (linguistic dimensions), and the consistency, commitment, and posture a person adopts with regard to learning (conative dimensions) (Basu & Palazzo, 2008).

10.4 Limitations and Proposal for Future Research

This chapter is based on our observations of how students make sense of two assignments. We only looked at two assignments in an undergraduate business context. The proposed definition is preliminary but a useful starting point and can be a good basis for further empirical work to elaborate and verify the findings in other contexts.

Basu and Palazzo (2008) describe dimensions of sensemaking processes in relation to social responsibility. Similar to their work, one could examine each of the three dimensions of sensemaking processes and explore how these influence student learning. For example, one could examine how the cognitive dimension, i.e. the way students think about their identity and legitimize that, influence their development. Such a study could extend the work of Argyris (2002) on teaching smart people to learn.

To highlight the role of consistency within the curriculum we observe that when students discuss the experiential exercises retrospectively, they enact their environment. This process contributes to the construction of a new reality for them. Furthermore, identities are constituted on the basis of interaction. To shift among interactions across courses or exercises is to shift among definitions of self. The

direction of causality flows just as often from the situation to a definition of self as it does the other way (Weick, 1995). The consistency of this identity from one course to another might be important for learning and, therefore, an essential component of management education. To succeed in change students will need to constantly examine their assumptions, biases, and prejudices; constantly examine the frames they are using for various situations (Argyris, 2002)

A question that arises here is that whether we can evaluate student progress based on the way a student goes about making sense of a class exercise. Each student might adopt different types of sensemaking processes. Thus, rather than evaluating the outcome of a course by focusing largely on the content of syllabus, a deeper examination of the development of meta-cognitive activities along the dimensions of sensemaking processes might be possible. This could have consequences for establishing the length of a course, the qualification of the instructor, and the consistency within the curriculum and across courses. In the same way that students' learning styles has consequences for course design and delivery, the processes students adopt in sensemaking has consequences for how we advance course design, delivery, and student evaluation. This chapter was too short of making comments on this.

Much recent literature has occupied itself with the idea that human beings communicate not just verbally but also nonverbally, which Polanyi (1966) framed the tacit dimension. This is developed particularly in the theory of distributed cognition (Hutchins, 1995) which also includes the artefacts and objects that surround human actors (Nemeth et al. 2004). This dimension is part of and influences sensemaking, but was not treated in this chapter. This can be a subject for another research agenda.

It is important to note that the context in which management learning happens will be different. This may happen within different cultural contexts, with different student types or teacher types. Our illustration was too limited to explore such issues. We welcome empirical studies of this subject and look forward to its application in practice. Furthermore, through the understanding of the process as sensemaking, we can identify the pattern or characteristics of the transition students go through to learn.

This way we may help the students to develop their meta-cognitive and self-regulatory processes for development.

Appendix: A PAA from a Student in Case 1

Concrete Experience

During the negotiation process for exercise #8 which consisted of the negotiation being conducted over the use and rights of Pakistani prunes that were a rare commodity in attempting to bring fertility back to the soil. I took on the role as Dr. Sanchez and it was my responsibility to try and persuade Dr. Wilson not to buy the prunes. The meeting took place because I, Dr. Sanchez, felt that if the United

Nations were to bid head to head against Dr. Wilson's company (which was one of the largest in the U.S.), that we would be horribly beat and have no chance of distributing the prunes to all the farmers in need to survive. As I read into Dr. Sanchez's prior history with negotiations I began to feel increasingly nervous because he was known to be a ruthless negotiator and may not be swayed at choosing to make a profit over the quality of life of others.

When we first met I was increasingly nervous because he seemed to be in a hurry and did not seem to care what I had to say. Despite my threatened feeling I began to plead my case to Dr. Wilson trying to appeal to his empathetic side. It seemed that the more I gave for reasons as to why he should not bid for the prunes the more confident he got in being able to out-bid me. I began to feel desperate trying to think of other methods to persuade him to think of humanitarian profits rather than monetary profits. After using many techniques to improve his ethical judgement and strengthen my own position I began to feel exhausted and began to feel that I may have to use unethical means to achieve justice for the starving farmers. Since it was clear that he had no interest in dropping his bid based on ethical standards I began to try and bribe him. Immediately I got the sense that this style of business was something that he was accustomed to and I commenced by offering him multiple sums of money. I began to feel awful and dirty because I have never conducted business this way and felt that my credit rating was diminishing by the second. I continued to barter with Dr. Wilson but it seemed that the profit he could make from the acquirement of the prunes out-weighed anything that I could possibly offer.

Reflective Observation

In many cases and especially in individualistic cultures monetary gains are often more important than humanitarian gains. The quote by Charles Darwin "survival of the fittest" is often the motivation many business manager, leaders, and owners live by. People are often forgot or considered collateral damage when a person such as Dr. Wilson conducts business. Countries such as Nigeria, where the government is filled with corruption and deceit, tend to disregard or belittle the importance of the protection of the people when there are oil companies involved that bring in much more revenue. With all resources being centred on the development of the oil extraction, there is little or no protection offered to the people in a country that is plagued by civil unrest and constant fear.

In countries such as Angola, Democratic Republic of Congo, Liberia, Sierra Leone there have been 3.7 million lives lost to the extraction of diamonds. Diamond companies as well as the governments of these countries have put the natural resource consisting of diamonds well above the importance of human life. This case is similar to the Pakistani Prunes case because it was clear that the farmers of many drought stricken areas were sure to die along with their wives and children if they were not provided with a considerable food source. Despite all efforts to plead to Dr. Wilson to recognize the personal need versus the gain of wealth ratio, I was

defeated in the sense that I had to hope for access to the prunes in a long-term deal rather than short term.

Abstract Conceptualization

During the negotiation I identified some key observations while conducting the negotiation. During the first part of the negotiation I felt that Dr. Wilson was withholding information from me because he was afraid I might use it to sway his judgement in the negotiation. When I asked Dr. Wilson why he wanted to obtain the prunes he engaged in a deceptive manner "intending to mislead me as his opponent about his own intent and future actions relevant to the negotiations" (Lewicki, 216). I later found out that his intent was to design a new weight loss drug that would potentially earn the companies multiples of millions of dollars. I thought this was a weak and unethical approach to dealing with the United Nations who is looking out for the best interests of people other than themselves.

As I began to get desperate for him to release his bid I began to use his information of gaining a profit on the heads of people from third world countries "to weaken him" (Lewicki, 216) through the use of information exploitation. I threatened to release the information that he denied the collaboration with the UN to gain a profit and this was when I finally got his attention and we could start to work out a deal. It was an unethical approach but I gained his attention and therefore was able to negotiate a deal. By using the strengthening of my position approach I was able to use "the threat of a third party" (Lewicki, 217) such as the media to grab his attention to make myself an equal opponent.

Active Experimentation

During the negotiation I identified a few key areas where I would have like the negotiation to take another path. During the negotiation it would have been interesting to see if he would have taken the bribe. In a real life situation often people are consumed by their own greed for money and I think judging by his negotiation tactics would probably have taken the money and forgot that the Pakistani Prunes existed. Also against my better judgement I followed the bribe with the threat that I would disclose the information he told me to the media and use a third party to persuade him to see the negotiation in a different light. In real life he would not have told me why he wanted the prunes because naturally anyone would probably go to the media because of the unethical nature that Dr. Wilson was trying to pursue. Companies such as the one Dr. Wilson works for are constantly doing damage control to eliminate the possible chance of bad publicity. If this was not a class activity Dr. Wilson would have responded differently to the threat of bad publicity because products such as weight loss pills thrive on good publicity and advertising, the thought of bad publicity would send alarms straight to the CEO if this were to really happen.

The negotiation would have been entirely different if we would have realized that we both needed different parts of the prunes. Often in negotiations the option to collaborate rather then compete is presented but both parties are so absorbed with their own goals that they fail to realize it. In this case Dr. Wilson as well as myself failed to recognize the potential collaborative measures that we could have taken and therefore both parties accepted huge losses in order to gain.

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Chapter 11
Knowledge Production and Generating Value: Taking the Dual Hurdle of Rigor and Relevance in an Entrepreneurial Way

Thomas Thijssen

11.1 Introduction

The problem addressed in this chapter is the alleged gap between theory and practice that causes universities to be detached from the real world and organisation to be detached from formal theory, thereby lacking relevant theory development in the broader fields of business and management studies (Pfeffer & Fong, 2002; Gosling & Mintzberg, 2003; Bennis & O'Toole, 2005).

Practitioners often do not benefit from formal academic theories. Scholars often do not benefit from practice. The gap between theory and practice can be framed in three ways (Mahoney & Sanchez, 2004; Van de Ven & Johnson, 2006; Maes, 2003; Thijssen, Maes & Vernooy, 2002; Thijssen, 2007): (1) as a knowledge transfer problem where academic knowledge is translated into practical knowledge for practical use; (2) as two distinct types of knowledge where the unique character of theory and practice is explicated; and (3) as a knowledge production problem where scholars and practitioners co-produce knowledge. In this chapter we choose the latter interpretation of knowledge production to generate solutions for complex problems.

To date this approach lacks empirical evidence. The aim of the research is to define design principles for knowledge production as a process of collaborative learning between scholars and practitioners and to present empirical evidence. At the University of Amsterdam over the past 20 years, we have experimented with learning projects in the setting of professional education and research in the field of information management and have developed a Learning-by-Sharing approach through interpretative concept development by studying literature in the fields of entrepreneurship, innovation, knowledge, learning and action research theory and a number of case studies in education and research in Information Management and related fields.

The hybrid research approach included eight case studies (Yin, 1994, 2003) of learning projects at the University of Amsterdam and a cross-case analysis.

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Documents are coded for hints and cues from narratives to unfold patterns that present design principles in each phase of learning. After an initial set of design principles emerged from these narratives we developed an extended set of Learning-by-Sharing design principles as a proposed set of transferable design principles for knowledge production to generate value and to bridge the gap between theory and practice. Through longitudinal action research (Checkland, 1981, 1985, 1991; Clark, 1972; Coghlan & Branninck, 2001; Baskerville & Wood-Harper, 1996; Susman & Evered, 1978) in the social services sector in the Netherlands from 2001 to 2008 these extended design principles were applied and tested addressing the complex issue of poverty and social exclusion. Principles were either confirmed or disconfirmed and omissions were identified. The resulting full set of transferable design principles for Learning-by-Sharing for knowledge production is presented as well as recommendations for further research. The design categories include context, complexity, timing, purpose, people, process, performance and evaluation. The implications for universities and organisations are discussed and the roles of scholars and practitioners are re-evaluated. Scholars, students and practitioners can benefit from the Learning-by-Sharing approach for knowledge co-production addressing real-world complex issues.

In Section 11.2.1 we report on theory on learning and knowledge and current territorial debates. The gap between theory and knowledge is framed as a knowledge production problem in Section 11.2.2. In Section 11.3 we introduce the Learning-by-Sharing model and in Section 11.3.1 the findings from our longitudinal action research in the form of transferable Learning-by-Sharing design principles for value creation. Finally in Section 11.4 we present implications for educational innovation.

11.2 Knowledge Production and Design Principles of Learning-by-Sharing to Generate Value

In this section we focus on theory on learning and knowledge and territorial debates and framing the gap between theory and practice and engaged scholarship (Van de Ven & Johnson, 2006) and introduce the Learning-by-Sharing design principles for value creation from our longitudinal study (Thijssen, 2007) derived from empirical evidence in the Netherlands in the period from 2001 to 2007. The framing of the gap between theory and practice as a knowledge production problem coincides with our position on generating value through Learning-by-Sharing.

11.2.1 Theory on Learning and Knowledge and Territorial Debates

When considering organisational learning Easterby-Smith, Crossan and Nicolini (2000, pp. 784–796) note that the debate of the *units* or *levels of analysis* was important as it allowed researchers of different disciplines to connect their research

to the field. This debate was around whether organisational learning was simply the sum of what individuals learn within organisations or there was something more to it. While the debate between individual and organisation levels of learning has subsided, the role of the group level has taken a more prominent role. In addition, the levels of analysis have been extended to examine learning *between* organisations and communities. Theorists are also using the levels of analysis to examine organisational learning in a more dynamic way (Crossan et al., 1999). In the opinion of the above authors this debate has been valuable since it has sharpened arguments and developed language, such as "memory systems" and "dialogue", that enable the connections to new areas of research.

Today there appears to be a broad acceptance of various levels of analysis. The emergence of new approaches yielded a different perspective on the levels debate. The social constructivist perspective starts from the assumption that learning occurs, and knowledge is created, mainly through conversations and interactions *between* people. This is what Bruner and Haste more than a decade ago called the "quiet revolution" in the study of learning and the mind. This "revolution" overturned the previous dominant model which implicitly conceptualised learners as individual actors processing information or modifying their understanding, and substituted it with an image of learners as social beings who construct their understanding and learn from social interaction within specific socio-cultural and material settings (Bruner & Haste, 1987; Edmondson, 1999).

This produced a shift from an *epistemology of possession* to one of *practice* with respect to the themes of knowledge and knowing (Cook & Brown, 1999) and introduced a stronger emphasis on socially oriented approaches to the understanding of learning and knowing. One of the notable consequences is the emergence of new units of analysis such as "communities of practice" (Lave & Wenger, 1991), "activity systems" (Engestrom & Middleton, 1996) and "ecologies of knowledge" (Star, 1995). These units of analysis, which figure ever more in papers and studies, open unexplored ways to understand the process through which identities, artefacts, ideologies, rules, language, morality and interests are woven together and affect each other in the process of collective learning. But there are still several issues, which are not entirely resolved, which is why according to Easterby et al. (2000) it is the *current* debate. These include the extent to which organisational learning might be conceived as a combination of cognitive and social processes; the ways in which formal organisational structures may influence location of learning; and the interaction of power and politics with organisational learning processes.

On the nature and the location of organisational learning Easterby et al. (2000) note that the issue of "meaning and measurement" presents a key dilemma between the relative value of macro/positivist methods versus micro/interpretative methods. The interpretative methods are related to a growing interest in narrative and story telling which are used to make sense of organisational events and phenomena (Boje et al., 2000).

11.2.1.1 Territorial Debates

Territorial debates tend to be more vigorous than those around the methodological issues, since they involve contestation of both academic and commercial turfs. An interesting example that has emerged in the last few years is the tension between the ideas of *organisational learning* and *knowledge management*. Nonaka was one of the key people to popularise the idea of knowledge management, through his book on knowledge-creating companies (Nonaka & Takeuchi, 1995). In this book the authors are quite dismissive of organisational learning on the grounds that it is too reliant on stimulus–response theory, it unwittingly extends models of individual behaviour to make sense of organisational-level phenomena and it has little of use to say about knowledge creation. They are also critical of Argyris's single-/double-loop distinction because of the paradox that double-loop learning requires outside intervention to make it work, and yet judgements about the need for double-loop learning can only be formed from inside the organisation, which is by definition, locked into a process of single-loop learning. Easterby-Smith et al. (2000) agree with the latter point but state that Nonaka and Takeuchi by emphasising knowledge over action, they might perpetuate the Cartesian split between mind and body. If indeed, they wish to achieve a synthesis they will need to elevate the role of action, and of being and doing, within the knowledge creation process. I find these debates most interesting and I follow Easterby-Smith et al. on the issue for a need to achieve synthesis between mind and body, and of being and doing in the knowledge creation process.

The debate about the relative value of concepts of learning and knowledge has been sharpened by the popular idea of "knowledge management" as a key to competitive advantage. Consultancy companies have managed to establish knowledge management as a major product, which employs information technology (IT) to leverage knowledge as a resource within companies. In this case the IT perspective is very dominant, and approximately 70% of publications on knowledge management so far have been written by information technology specialists who focus on the technical aspects, such as database design and knowledge warehousing. But the debate may be changing again. Evaluations (Davenport et al., 1998) of knowledge management have shown that a lack of attention to *social* factors may be impairing the effectiveness of implementations. In the academic community there are signs of convergence between knowledge management and organisational learning.

Easterby-Smith et al. look ahead to emergent issues and promising ideas, such as the *practice* and *activity* as new units of analysis. This is reinforced by the establishment of the ideas that knowledge is always enacted and situated and that learning at work should always be conceived as learning-in-working (Brown & Duguid, 1991; Law, 1994; Suchman, 1987; Weick, 1995).

11.2.1.2 Intersection of Practices and Networks of Interest

Another new challenge Easterby-Smith et al. indicate is the issue of reconciling learning with diversity involving redefining the organisation. In a time of

fast-growing digital interconnections and globalised, decentred corporations, it is becoming ever more difficult to think of "organisations" as stable entities with defined boundaries. We can appreciate them more as the enduring and yet contingent outcome of collective efforts: that is, as the result of an intensive activity of assemblage, boundary-making and identity preserving, which takes place at the intersection of practices and networks of interest:

> The networks of LbS communities at Via Nova Foundation and the University of Amsterdam (Maes, 2003; Huizing, 2002; Huizing, Maes, & Thijssen, 2007; Thijssen, 2007) mirror that image, where a common frame of reference on a certain domain of knowledge (i.e. human centred design, information management, education and learning or experience economy) each form their own networks of academics and practitioners to advance the topic at hand. Cross-country knowledge production and sharing is proposed to accelerate learning between practitioners and scholars.

Easterby-Smith et al. note that, once we abandon or reject the assumption that organisations are homogeneous and functional units, we are left with the exciting and challenging task of making sense of, and describing, the work necessary for *sustaining the process of collaboration*.

11.2.1.3 The University System

The university as an institution is at a decisive moment in its history. It is confronted with numerous outside challenges: the demand as well as the supply of education is globalising, the coming generation of students differs significantly from preceding ones, the need for life-long education is replacing the classical learning period between ages 18 and 23 and new technologies call for new learning models. If concepts like "learning organisation" and "learning society" are valid, then the university should be a pioneer in this field.

However, despite the changes of the past 30 years, the (European) university system has not been altered fundamentally. Learning still precedes working. Professors teach students the outcomes of their research or they teach what they have read before. Students attend lectures, read books and articles and take exams. Most of the time, learning processes at the university still take place in the splendid isolation of the ivory tower and is seen from the perspective of knowledge transfer from university, to student, to a practitioner.

One of the most disturbing aspects of universities is that learning continues to be viewed as *a passive process*. The teacher is perceived as the unquestioned dispenser of objective knowledge, and students as the uncritical receivers. Students can complete their study by sheer absorption and accumulation of knowledge. The actual learning process follows a predetermined route, that is, a fixed curriculum, even though universities tend to emphasise self-guidance on the part of students in carrying out learning tasks. The teacher's role is restricted to designing the curriculum, prescribing the learning path to be followed and giving student feedback on the extent to which they have acquired the learning content. Moreover, most students work their way towards graduation in solitude.

In the past 20 years, the Department of Information Management of the University of Amsterdam has experimented with alternative learning models, most of them incorporated in a successful postgraduate course in Information Management. The lessons learned from this ongoing experience have been fully adopted by the section Information Management at the University of Amsterdam. Via Nova Foundation applies the knowledge and experience in collaborative innovation projects in practice.

11.2.2 Framing the Gap Between Theory and Practice

Van de Ven and Johnson (2006) examine three ways in which the gap between theory and practice has been framed and argue for *engaged scholarship*. They define engaged scholarship as collaboration between researchers and practitioners co-producing knowledge that can advance theory and practice in a given domain. The gap between theory and practice is typically framed as either (1) a knowledge transfer problem, (2) theory and practice as distinct forms of knowledge or (3) as a knowledge production problem.

1. Viewing it as a knowledge transfer problem: This approach is based on the assumption that practical knowledge (knowledge of how to do things) in a professional domain derives at least in part from research knowledge (knowledge from science in particular and scholarship more broadly). Practitioners fail to adopt the findings of research in various fields because the knowledge that is produced is not in a form that can be readily applied in contexts of practice. Argyris and Schön (1996) argue that scientific knowledge will be implemented only if researchers, consultants and practitioners jointly engage in interpreting and implementing study findings. Empirically we know very little about what makes research use happen or not happen (Van de Ven & Johnson, 2006).
2. Viewing knowledge of theory and practice as distinct kinds of knowledge: Users of both scientific and practical knowledge demand that it meet the dual hurdles of being relevant and rigorous in serving their particular domains and interests (Pettigrew, 2001). However, different criteria of relevance and rigor apply to scientific knowledge and practical knowledge because their purposes, processes and contexts are different. The relevance of each form of knowledge should be judged in terms of how well it addresses the problematic situation or issue for which it was intended (Dewey, 1951). Van de Ven and Johnson (2006) state that we may have misunderstood the relationship between practical and scholarly knowledge, and this has contributed to our limited success in bridging these two forms of knowledge in arenas of *human activity*. Exhortations for academics to put their theories into practice and for managers to put their practices into theory may be misdirected because they assume that the relationship between knowledge of theory and knowledge of practice entails a literal transfer or translation of one into the other. Instead Van de Ven and Johnson take a *pluralistic view of science* and practice as representing distinct kinds of knowledge that provide

complementary insight for understanding reality. Each kind of knowledge is developed and sustained by its own professional community, which consists of people who share a common body of specialised knowledge or expertise. Each form of knowledge is partial – a way of seeing is a way of not seeing. Strengths of one form of knowledge tend to be the weaknesses of another. Once *different perspectives* and kinds of knowledge are recognised as partial, incomplete and involving inherent bias with respect to any complex problem, then it is easy to see *the need for a pluralistic approach to knowledge co-production among scholars and practitioners*.

3. Viewing it as a knowledge production problem: Van de Ven and Johnson (2006) propose that there is a growing recognition that the gap between theory and practice may be a knowledge production problem. Common to the assessments of the status and relevance of practice-oriented social science is the view that a key defining characteristic of management research is its applied nature. A variety of suggestions have been made for producing practice-based knowledge. Many have been institutional in nature. Structural reforms are important, but analysis of structural reforms tend to overlook the activities of individual researchers. Pettigrew (2001) states that a deeper form of research that engages both academics and practitioners is needed to produce knowledge that meets the dual hurdle of relevance and rigor for theory as well as practice in a given domain. Van de Ven and Johnson (2006) propose engaged scholarship to be extended with the strategy of intellectual arbitrage to exploit the differing perspectives that scholars from different disciplines and practitioners with different functional experiences bring forth to address complex problems or questions. Arbitrage represents a dialectical method of inquiry where understanding and synthesis of a common problem evolve from the confrontation of divergent thesis and antitheses. It is a strategy for triangulating on problems by involving individuals whose perspectives are different.

The above discussions about framing the problem of the gap between theory and practice provide the academic context for the study, where the issue of the dual hurdle of rigor and relevance is seen as the central problem for advancing knowledge about theory and practice.

We also view the gap between knowledge and practice as a *knowledge production problem*, following Van de Ven and Johnson (2006), hence the need for a new collaborative learning model to combine rigor and relevance and in particular for empirical evidence to show that the new model generates value.

11.3 The Concept of Learning-By-Sharing

The dawn of the knowledge society has created a need for a successful combination of *life-long learning, entrepreneurial behaviour and self-development*. Organisations and networks will have to be redefined as generic learning environments for individuals to generate value. This emerging perspective calls for new learning

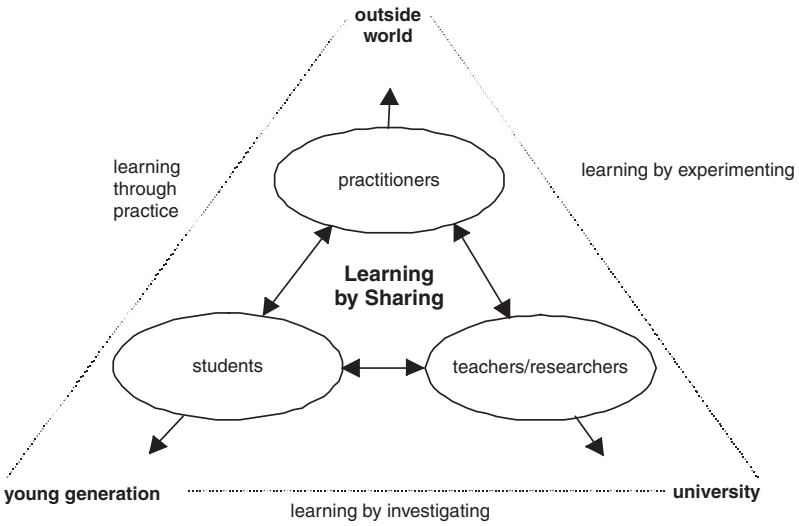

Fig. 11.1 Learning-by-Sharing

models and new learning infrastructures, examples of which are being developed at the University of Amsterdam.

The model described below involves three types of participants in the learning process and three methods of learning. The integrating concept is called *Learning-by-Sharing*. It is an eclectic learning approach and builds on existing learning approaches such as the collaborative approach, the constructivist approach and the cognitive approach (Thijssen et al., 2002). The Learning-by-Sharing model incorporates the collaboration of three parties in real-life learning: the outside world as represented by *practitioners from business, NGO and government*; universities as represented by *teachers/researchers*; and the young generation as represented by *students*. These three parties interact in various ways, as shown in Fig. 11.1. Their interactions are shown along the three sides of the learning triangle: learning by experimenting, learning by investigating and learning through practice.

11.3.1 Learning-by-Sharing Design Principles to Generate Value

The Learning-by-Sharing model as described above can be seen as a "photograph", a two dimensional image of how theory and practice *can* collaborate to close the gap. Our research unveiled the "movie" or Learning-by-Sharing approach in time, providing transferable design principles for generating value in time and space through Learning-by-Sharing and explains ***how*** engaged scholarship can take place. The evidence is based on a cross-case analysis of cases in education and research at the University of Amsterdam and longitudinal action research in the field of combating poverty and social exclusion in the Netherlands (Thijssen, 2007). In Table 11.1 we present the findings as an overview of the Learning-by-Sharing

Table 11.1 Learning-by-Sharing approach and design categories (Thijssen, 2007)

Action research steps	Diagnosing	Diagnosing	Diagnosing	Action planning	Action taking	Action taking	Evaluating	Explicating learning
LbS design category	Context	Complexity	Timing	Purpose	People	Process	Performance	Evaluation
LbS design principles	1. Problem definition	1. Dynamic complexity	1. Sense of urgency	1. Common purpose	1. Inclusiveness practitioners and scholars	1. Action learning and knowledge co-production	1. Norms and values	1. Gap between desired and undesired situation
	2. Client infrastructure	2. Behavioural complexity		2. Common language	2. Connectedness	2. Common frame of reference from theory	2. Problem solution	2. Contribution to growth employment and competitiveness
	3. Levels of analysis			3. Learning as a social process	3. Quality relationships (trust, enabling)	3. Mental models desired state	3. (Social) return on investment in terms of growth, employment and competitiveness	3. Explicating lessons learned on various kinds of knowledge and the relevance to knowledge production
	4. Regulatory issues			4. Transformation from undesired state to a desired state	4. Culture and power balance	4. University and practice	4. Value for constituents served	4. The value of internationalisation and networking

Table 11.1 (continued)

Action research steps	Diagnosing	Diagnosing	Diagnosing	Action planning	Action taking	Action taking	Evaluating	Explicating learning
LbS design category	Context	Complexity	Timing	Purpose	People	Process	Performance	Evaluation
	5. Social issues			5. Real-world issue	5. Knowledge and skills	5. Fundamental theories applied to practice	5. Value for initiator, stakeholder and participants	5. Validation of the Learning-by-Sharing approach
	6. Technology issues					6. Engage in a dialogue, learn, innovate, account for value created	6. Learning to learn capabilities	6. Conclusions, implications and recommendations for research and policy development
						7. Quality relationships (trust, enable, enact)	7. Power equality	
							8. Accountability	
Roles LbS learning community	Initiator, stakeholders	Initiator, stakeholders	Initiator, stakeholders	Initiator, moderator, stakeholders Participants: practitioners and scholars	Initiator, moderator, stakeholders Participants: practitioners and scholars	Initiator, moderator, stakeholders Participants: practitioners and scholars	Initiator, moderator, stakeholders Participants: practitioners and scholars	Initiator, moderator, stakeholders Participants: practitioners and scholars
	Constituents served	Constituents served	Constituents served	Constituents served	Constituents served	Constituents served	Constituents served	Constituents served

approach as a methodology for co-producing knowledge in learning communities to generate value.

Learning-by-Sharing is grounded in action research theory (Susman & Evered, 1978; Susman, 1983; Baskerville & Wood-Harper, 1996) and is enriched through our longitudinal research in the Netherlands (Thijssen, 2007). In Fig. 11.2 we identify the steps in action research methodology from theory of diagnosing, action planning, action taking, evaluating and explicating learning. Immediately below we present the Learning-by-Sharing design categories from our research and the subsequent Learning-by-Sharing design principles. Finally we identified the main actors in the Learning Community such as the initiator of the project, the stakeholders, the moderator, the participants as practitioners and scholars and the *constituents served*. In all phases of the Learning-by-Sharing approach the focus is on assisting the constituents served in improving the quality of life in terms of socio-economic security, social inclusion, social cohesion and empowerment for and in socio-economic participation (Walker & Van der Maesen, 2004) as prerequisites for growth, employment and competitiveness in society.

11.4 Implications for Educational Innovation

When we observe the Learning-by-Sharing design categories, the Learning-by-Sharing design principles and reflect on the empirical evidence we can state the following:

A synthesis is reached between a rational and theoretical process orientation (main focus on *rigor*) and the human action orientation to transform from the "undesired state" to the "desired state" (main focus on *relevance*).

Human action as building *trust, enabling and enacting* come together with the use of a common purpose, a common frame of reference and a social entrepreneurial process of engaging, learning-by sharing, innovating and performing. Performing is defined as accounting for social value creation to the stakeholders.

This confirms Mahoney and Sanchez (2004) who proposed to *integrate processes and products of thought*, to build better business logic and *in the process* simultaneously develop new management theory.

Bringing together business and university for the purpose of studying real-world fundamental issues requires action learning or *action research in a more entrepreneurial way to combine rigor and relevance*. The roles of *initiator and moderator* are included to bring about the project and to facilitate collaborative effort, to bridge the gap between theory and practice and address the cultural difference and the language problems.

A new mindset is needed both in business and business education changing the view from knowledge transfer to knowledge production in learning communities to generate value.

The Learning-by-Sharing approach will need to be applied and tested addressing a range of complex real-world issues in more contexts with different aims for

Action Research Steps	Diagnosing	Diagnosing	Diagnosing	Action Planning	Action Taking	Action Taking	Evaluating	Explicating Learning
LbS Design Category	**Context**	**Complexity**	**Timing**	**Purpose**	**People**	**Process**	**Performance**	**Evaluation**
LbS Design Principles	1. Problem definition 2. Client infrastructure 3. Levels of analysis 4. Regulatory issues 5. Social issues 6. Technology issues	1. Dynamic complexity 2. Behavioural complexity	1. Sense of urgency	1. Common purpose 2. Common language 3. Learning as a social process 4. Transformation from undesired state to a desired state 5. Real world issue	1. Inclusiveness practitioners and scholars 2. Connectedness 3. Quality relationships (trust, enabling) 4. Culture and power balance 5 Knowledge and skills	1. Action learning and knowledge co-production 2. Common frame of reference from theory 3. Mental models desired state 4. University and practice 5. Funda-mental theories applied to practice 6. Engage in a dialogue, learn, innovate, account for value created 7. Quality relationships (trust, enable, enact)	1. Norms and values 2. Problem solution 3. (Social) return on investment in terms of growth, employment and competitiveness 4. Value for constituents served 5. Value for initiator, stakeholder and participants 6. Learning to learn capabilities 7. Power equality 8. Accountability	1. Gap between desired and undesired situation 2. Contribution to growth employment and competitiveness 3. Explicating lessons learned on various kinds of knowledge and the relevance to knowledge production 4. The value of internationalisation and networking 5. Validation of the Learning -by-Sharing approach 6-Conclusions, implications and recommendations for research and policy development
Roles LbS Learning Community	Initiator Stakeholders Constituents served	Initiator Stakeholders Constituents served	Initiator Stakeholders Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served

Fig. 11.2 Learning-by-Sharing Approach and Design Categories (Thijissen, 2007)

value creation and with other people in different cultures. From 2008 the approach will be applied and tested in several European countries aiming to advance the new approach further to benefit from combining rigor and relevance.

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Part II
Best Practice in Business Education

Peter Daly and David Gijbels

Real learning opportunities can be provided both within the business school via learning innovation or beyond via the integration of external partnerships or the implication of other institutions. In this part two chapters deal with learning beyond the business school, while the other three look at learning concerns within the academy. The chapters that look beyond the academy address the issues of international residencies and global exposure of MBA students and the integration of external partners (i.e. business leaders and students from other disciplines) into business school programs via the creation of learning teams and mutually beneficial synergistic approaches. The chapters that look at learning opportunities within the business school deal specifically with the enhancement of the master's supervision process, the marketing and re-designing of German business communication courses to improve student learning and the integration of reality TV to provide authentic learning opportunities to students on a business communication course.

In Chapter 12, Dyer, Liebrenz-Himes and Hassan describe a study they carried out into *direct global exposure programs* (also referred to as study tours or international residencies) based on a content analysis of MBA program websites. They suggest how these study tours should fit into an overall framework to increase the globalization of MBA programs. The authors conclude that these kinds of programs are still evolving, faculty driven and ad hoc and they propose a "Framework for MBA Programs' Globalization", which should aid MBA administrators to improve their globalization efforts and global exposure.

In Chapter 13, Cope Pence and Wulf describe a collaborative learning team entitled the "hybrid learning team inquiry model" at the University of California Riverside, which brought together engineering and business graduate students, faculty and regional business leaders with the aim of conducting field-based research as part of a master's level entrepreneurship class. This collaboration between internal and external business school stakeholders enabled the funding of new business ventures; the development of information sharing; the creation of links and collaboration and new employment opportunities. This chapter shows how casting your net beyond the business school to integrate different partnerships within a formal learning team can lead to learning opportunities for all the stakeholders involved.

In Chapter 14, Semeijn, Semeijn and Gelderman explore the master's thesis supervision process in a Master of Science degree context empirically. They examined the benefits of using thesis circles to increase the efficiency and effectiveness of the thesis supervision process but found no significant negative or positive effects. However, the study does stress the methodological and process-related aspects of supervision over the content-related aspects and there is an argument for helping supervisors to improve their methodological skills to enhance supervision practice. The study also makes a link between thesis process duration and supervisor responsiveness as well as the fact that published supervisors tend to be more responsive than their non-published colleagues.

In Chapter 15, Verboven describes how structural changes in the school and university curriculum and popularity issues have led to a decline in the numbers of students taking German as a foreign language at university. In order to combat this trend, two actions are taken: (1) effective marketing of German to prospective students and (2) curriculum re-design to enhance the learning environment. He reports on the effectiveness of these two strategies and how these strategies can be generalized to other types of courses.

In Chapter 16, Clifton explains how semi-authentic interaction taken from business-oriented reality TV shows such as *The Apprentice*® can provide business communication students with access to entertaining and memorable learning opportunities. In this best practice chapter, the author espouses the use of scripts and reality TV in a career writing classroom to introduce the business communication student to authentic business interaction.

Chapter 12
Global Exposure in Leading MBA Programs

Robert Dyer, Marilyn Liebrenz-Himes, and Salah Hassan

12.1 Global Exposure in Leading MBA Programs

12.1.1 Major Trends in MBA International Study Programs

Study-abroad experiences, once the province of expensive executive MBA programs and undergraduate semester abroad programs at many undergraduate institutions, are now being offered at many business schools for full- and part-time MBA students. In fact, having and promoting these study-abroad programs is increasingly necessary to be competitive in recruiting FT MBA students. This chapter will discuss how well-known business schools are augmenting their traditional study-abroad and exchange programs with international partner schools to enhance the global outlook of their students. This research documents the availability and degree of popularity of the newer MBA global study tours (GSTs), which are short-term programs involving groups of students from MBA programs going abroad with faculty members as part of the requirements of a graduate course.

To be sure, students' direct exposure to international business operations through foreign travel takes many forms in practice. Current international programs include such offerings as the traditional study-abroad (SA) activity, where the student takes the lead in crafting a program abroad; summer-term experiences; single semester or year-long academic exchanges between partner schools; elective courses taken at institutions abroad; courses offered at their own study centers abroad by the degree-granting institutions; elective courses offered by MBA program faculty which include a foreign travel component; and short-term MBA global study tours. These programs can vary by length of time abroad, the involvement of their own MBA program faculty, the involvement of partner institutions, the "required versus elective" status of the course(s), and even the inclusion (or not) of academic credit.

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The reasons underlying the increasing use of international travel as an MBA program component can be traced to a variety of forces. For example, AACSB, EFMD, and EQUIS accrediting standards are calling for increased globalization of offerings (AACSB, 2008). Global exposure is becoming an even more important recruiting tool to differentiate between programs, and possibly one of the key forces here is substantial growth of specialized firms (and schools abroad) which have gotten into the business of packaging international experiences for US and non-US business schools and other institutions looking to outsource the delivery of these programs. Economic community agreements also play a role. For example, EU member countries have the advantage of their students having access to widely available exchange programs and transferability of academic credits through the EU's Socrates Programs/Erasmus agreement (Université de Lausanne, 2008). Another factor involves the relatively new ranking schemes for MBA programs like the *Financial Times*' global MBA rankings which utilize a program's degree of "global exposure" as a ranking criterion (*Financial Times*, 2008). Finally, the increasing interest and student demand for additional international exposure and global education is driving this growth of travel-related programs.

This research study has used a series of guiding question to craft an MBA globalization framework and then investigate details of MBA globalization efforts, particularly those relating to direct global exposure and foreign travel.

12.1.1.1 Guiding Questions for the Paper

- What makes an MBA program global?
- What is the distinction between direct and indirect global exposure programs?
- How are leading schools of business and management augmenting their traditional activities such as study-abroad programs and/or exchange programs with partner schools in other countries to enhance the global outlook of their students?
- How do short-term study-abroad tours fit into an overall menu of offerings to increase student global understanding at leading MBA programs?
- What are the significant differences between the various direct global exposure programs at US and non-US MBA programs?

12.1.1.2 MBA Program Globalization Framework

What makes an MBA program global? What are the elements that can be utilized by program designers to enhance global exposure of the students involved in an MBA program? An operational definition of "global exposure" is "the overall climate and emphasis of the program towards international business; it includes experiential, programmatic, and structural dimensions of the program."

Major factors include students (background, diversity), faculty (experiences, background), and curriculum (content, extracurricular programs, cases, modules) as well as both the direct and indirect global exposure approaches used by the school which play into its global perspectives. The factors include environmental forces or agents (such as accreditation standards, the economy, and other competing MBA

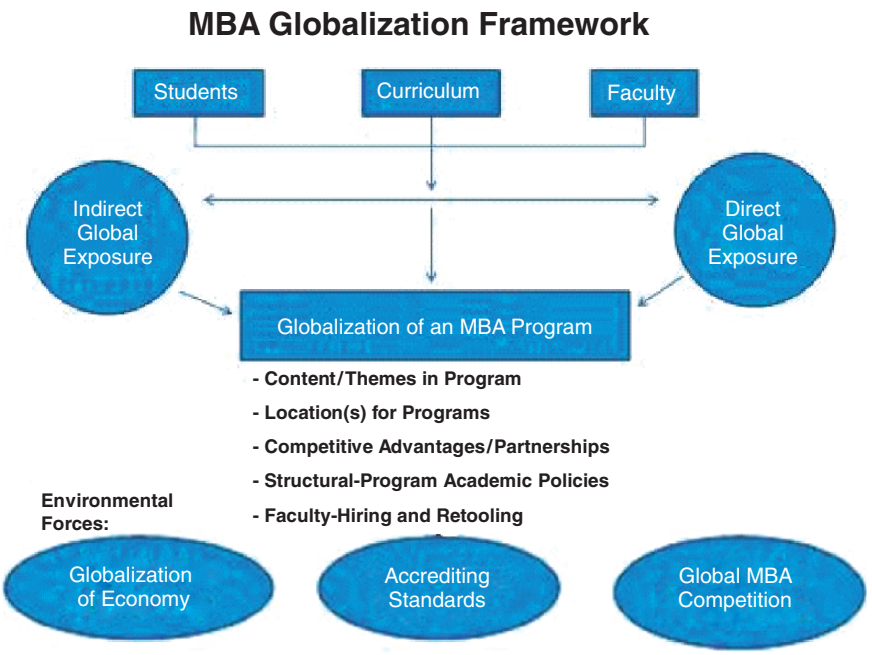

Fig. 12.1 MBA globalization framework (Adapted from Alon and McAllaster, 2005)

institutions), the geographic location of the current international program, as well as its competitive advantages and themes that are emphasized.

A combination of all of these elements impacts an MBA program's global exposure. A depiction of the major elements of an MBA program's global presence is shown in Fig. 12.1. This figure depicts these major elements in an MBA program's overall global makeup (adapted from Alon and McAllaster, 2005).

Further, one can posit that global exposure directly relates to global or cultural competence. Cultural competence refers to an ability to interact effectively with people of different cultures. Cultural competence is comprised of four components: (a) awareness of one's own cultural worldview, (b) attitude toward cultural differences, (c) knowledge of different cultural practices and worldviews, and (d) cross-cultural skills. Developing cultural competence results in an ability to understand, communicate with, and effectively interact with people across cultures (Martin & Vaughn, 2007).

The importance of global or cultural competence should not be underestimated. Associated with these measures of global or cultural competence factors is the element of international experience (referred to as "Criteria # 17," a factor used by the *Financial Times* as one of its ranking criteria). "International experience" is defined as "the level of international exposure among MBA students during their program" (*Financial Times*, 2008). Clearly, cross-cultural insights about the countries of regions to be visited in sessions prior to going abroad, the trip itself as a means of experiencing cultural similarities and differences, then program

debriefing sessions upon return from the travel all increase the sophistication or cultural competence of the students and provide insights on how they can function more effectively in another culture.

12.1.2 Direct Global Exposure Programs

There is a substantial body of research dealing with the history and development of study-abroad (SA) programs, including outcomes assessment studies of international exchanges, studies of the evolution of international business and marketing curricula, and trends in global business education.

Sherman (1999) provided a summary of the impact of an international consulting experience in shaping the "global competence" of undergraduate students. In this context, global competence was taken to mean the development of skills to be able to understand and effectively operate in other cultures. Sherman noted that a program's effectiveness could not just rely on creating an awareness of global issues. An action learning, project-based activity was reported to be necessary to assist students in moving toward global competence.

A literature review of research on US student involvement in SA programs examined the nature of the SA experience as well as a measurement of gain in language proficiency among other topics (Chao, 2001). As expected, length of time spent abroad predicted language proficiency gains. Students in SA programs made significant gains in speaking and listening, but less substantial gains in literacy. There also have been other studies which have suggested that greater cultural understanding could be fostered with SA activities. For example, Hutchings, Jackson and McEllister (2002) looked at the development of cultural understanding through an international study tour to China.

Fleming, Shooshtari, and Wallwork (1993) reported that 9% of AACSB-accredited schools offer study-abroad programs on their own and 38% offer SA either on their own or jointly with the University. Of course, offering a program is not the same thing as generating student participation. Arpan, Kwok, and Folks (1994) conducted a survey to determine rates of student participation in SA. Their results showed that only 2% of students participated in summer SA, 3% of students spent a semester or more abroad, and that only 3% obtained an overseas internship. Short-term SA programs such as global study tours were not examined. A follow-up study (Arpan & Kwok, 2001) found higher levels of participation, with 7.8% of master-level students at US universities participating in international internships and 8.6% participating in other SA activities. These higher rates are attributed to the increasing MBA program interest in global exposure. These results also dealt with short-term programs and indicated that, at the master's level, 17.9% of US university students participated in short-term trips abroad. Apparently, by 2000, the short-term tours had emerged as a major method for direct global exposure

In a more recent study of international travel in MBA programs, Curie, Gilbert, and Matulich (2004) reported that 42% of the North American MBA programs in their sample had a foreign travel component as part of their MBA education. The

authors concluded that "although foreign travel apparently has increased since the early 1990, it is still not sufficiently widespread to be offered by a majority of North American MBA programs." However, since over 40% of all these MBA programs were offering a foreign travel component, direct global exposure now was used by a significant minority of programs.

The Academy of International Business (AIB) sponsored periodic global curriculum surveys to examine trends and developments in international business education (Arpan et al., 1994). These studies have found that varying goals and methods of internationalization were employed by the responding institutions. Further, there were gaps in the amount of internationalization progress achieved, even though much had been accomplished since these surveys had been initiated. Along the same line of research, Kaynak and Schermerhorn (1999) studied the evolution of teaching and program variations in international business education.

The research closest to the objectives and approach of this study was undertaken by Curie et al. (2004) who studied MBA student international travel offerings (direct exposure) at programs throughout the United States and Canada. The authors' conclusions were as follows: (1) graduate schools of business in North America have increasingly relied on short-term study trips to give students an international exposure; (2) the short-term trips are more cost-effective and lead to greater student participation (versus SA or internships); (3) travel is not often an otherwise required activity at the surveyed programs, whereas granting academic credit is typical; and (4) students in these programs involved in a variety of activities beyond touring firms and visiting cultural sites and governmental agencies. Coursework activity in these study-abroad programs included readings, cases, lectures, and projects.

In summary, the literature suggests that direct global exposure has become a major educational vehicle in many graduate programs worldwide. Within direct global exposure, short-term offerings are gaining significant popularity. Most of the studies reviewed are descriptive and examine the trends in global study-abroad offerings. A minority of the studies have stronger conceptual bases and seek to understand the antecedents and consequences of students' global experiences and the impact of globalization as part of the programs' design.

Building on the Curie et al. (2004) research, this 2008 study provides an update on similar topics but also addresses the "mix" of direct and indirect global activities in MBA programs. Most importantly, this study looks at leading MBA programs worldwide and is not focused on just a broad-based sample of only North American programs. The emphasis of this 2008 research study has been to examine and describe what the elite, highly ranked MBA programs worldwide are doing and their best practices, their new activities, and other major trends in this global exposure area.

12.2 Methodology

This research study utilized a variety of techniques. First, a content analysis of program websites was conducted on a sample of accredited worldwide MBA

programs. This content analysis sample was drawn from the top 30 ranked MBA programs in the *Financial Times*' 2008 Global MBA Rankings Study (*Financial Times*, 2008). After examining our content analysis results, which provided an overview of the offering of the direct, international program experiences, an online survey was conducted utilizing the *Financial Times*' top 100 MBA global programs and their administrators as the respondents. This online survey, as a form of descriptive research, examined numerous factors associated with the direct exposure programs including US versus non-US program location, student participation, length of time involved, credit/non-credit status, elective/required status, location of overseas programs, student interest, and program best practices. In both investigations, FT MBA programs were the focus of the research investigation. Special features of these programs were investigated and best practices elicited. The online survey used the SurveyMonkey system and was directed to the MBA Program Director or Associate Dean for graduate/MBA programs in each academic institution. The survey contained ten questions, seven close-ended and three open-ended items. Two follow-ups were used to encourage response to the survey after the initial email message with the link to the survey was sent.

12.3 Research Results

12.3.1 Findings – Content Analysis Results

The content analysis research indicated that over 70% of US and international (non-US) MBA programs in the *Financial Times*' top 30 utilized study-abroad or exchange programs with partner schools (see Table 12.1). By comparison, Curie et al.'s 2004 survey of North American MBA programs found that only 42% offered a foreign travel component, although Kwok and Arpan (l994) reported a 51% rate in US universities including SA, internships, and overseas trips. One conclusion might be that elite schools worldwide are more likely to have a study-abroad/exchange program or other foreign travel component.

Table 12.1 summarizes the direct global exposure opportunities and the frequency of use of these vehicles for MBA program globalization noted by our *Financial Times*' MBA content analysis sample. The table contrasts US and non-US institutions in terms of programs involving travel abroad. The top 30 programs included in these calculations are shown in Appendix 1.

Also, as evident in Table 12.1, there is a dramatic difference in the online promotion of short-term study-abroad programs with these programs being much more frequently mentioned in the websites of US schools of business. Similarly, there appears to be more mention in online promotion of consulting practicums, research projects, and internships by the US institutions. However, internships, overall, do not appear to be a widely promoted vehicle at either US or non-US schools. This void in regard to the internship factor may well be due to the increased difficulties of arranging international internships in today's marketplace,

Table 12.1 Content analysis – direct global exposure (MBA programs which indicate educational global activities on the program website)*

Direct global exposure program element	Percentage of schools noting in website	
	US schools	International schools
Study-abroad/exchange programs	76	71
Short-term MBA study tours to various countries	71	17
Internships arranged abroad	21	0.0
Consulting and research projects abroad	50	24

*Base for calculations was 13 US schools and 17 non-US schools.

not an accurate indication of interest on the part of schools, students, or prospective companies.

As well, there are a number of hypotheses that might be suggested for the other "US versus non-US schools" differences noted here. For example, US schools may feel that they need to promote greater emphasis on global exposure, while in other countries and programs the overall context of the program and the local business environment are much more globally focused to begin with. Also, students enrolled in many of the top international (non-US) MBA programs may already have exchange and study-abroad experiences as undergraduates along with more extensive language and travel backgrounds. Further, more non-US schools are known to have more 1-year MBA programs with little time for additional travel as part of the program. This would appear to be particularly the case in EU countries. There are a variety of additional possibilities here, so to provide some additional insights, the following section will shed further light on the characteristics of the direct and indirect global exposure programs based upon the electronic survey data.

12.3.2 Findings – Online Survey of Leading Global MBA Programs

12.3.2.1 Online Survey – Sample Profile

All of the 34 universities responding to this online survey had FT MBA programs, the focus of this study. While the respondent sample had nearly twice the number of US schools participating, this survey also had strong representation from well-known Asian business schools. Overall, the participating programs were relatively large and very international in student body makeup. A profile of the 34 MBA programs participating in the study is provided in Table 12.2. The list of participating programs is provided in Appendix 2.

Table 12.2 Profile of survey sample

Us programs −22; International (non-US) programs −12
Annual student intake (median) −213
Percentage of international students in program (median) −39%
Types of MBA programs (mean) – FT (100%); PT (65.6%); executive (75%); other (37.5%)

The questions dealing with "indirect" global exposure elements produced a predictable response from the top FT global schools. All of the listed elements were heavily emphasized with the exception of language and culture offerings within the MBA program. Perhaps the bias here is that program directors might be reluctant to indicate that their program was not diverse in faculty and student composition or that it lacked strong global coverage in its curricula or did not include international extracurricular activities. As far as the "other responses," it is interesting to note that a good number of the responding programs suggested that they had created "global MBA programs" or add-on certificates which required additional coursework, language proficiency, or residence at one or more partner programs overseas in addition to the home program. Many of these programs/certificates had been introduced fairly recently.

Table 12.3 reviews the findings relative to indirect global exposure based upon the survey data.

The findings on the MBA programs' direct global exposure aspect were not surprising; in fact, the results here are very similar to the findings from the content analysis of MBA program websites as shown previously in Table 12.1. One notable difference is that the online survey data here shows a much higher availability of short-term study tours, internships, and consulting/research by all the FT top schools compared to what was found in the content analysis. Exchange programs

Table 12.3 MBA programs' indirect global exposure*

Indirect global exposure program element	Percentage of programs noting usage Total sample
Diverse cohorts of students recruited	91.7
Faculty with international background and experience	100.0
Student organizations providing international perspective	97.1
International speakers, seminars, and events	94.1
Global curriculum – courses, modules, and cases dealing with global issues	100.0
Offering courses in language and culture	51.6
Other	26.5

*Base for calculations is 34 total responding schools.

Table 12.4 MBA programs' direct global exposure

Direct global exposure program element	Percentage of schools noting usage
Study abroad as visiting student	58.8
Exchange programs with partner schools	85.3
Short-term MBA study tours to various countries	79.4
Internships arranged overseas	67.6
Consulting practicums and research projects overseas	58.8
Other	14.7

and short-term MBA study tours led the list as the most popular direct global exposure activities.

Table 12.4 highlights the "direct" global exposure programs utilized by the MBA programs in our study.

The overall conclusion is that these elite MBA programs have many more international travel/direct exposure programs than reported in earlier studies of MBA programs and university-wide graduate programs. These studies showed rates of direct global programs' availability in the 40–50% range versus 60–80% in this study.

12.3.3 Required or Elective Course Options

Some indirect and direct international exposure activities might be considered extracurricular in nature, such as attending a school-sponsored international event or participating in a student organization's trip to a foreign country. Others may be built into the academic structure and requirements for the program. Earlier studies showed that foreign travel is required in only a small minority of North American MBA programs (Curie et al. 2004). Table 12.5 indicates that while most direct exposure activities still remain as program elective courses, global study tours have a somewhat greater incidence of being part of required courses or activities, as depicted in Table 12.5. The conclusion still holds, however, that even though direct global exposure activities at leading MBA programs are widely available, they still are not heavily incorporated as a key component in the overall curriculum. Tables 12.5, 12.6, 12.7, 12.8, and 12.9 provide additional details about the specifics of direct global exposure activities.

All the direct exposure programs, save for global study tours, have low mean participation rates in the 0–20% category. Global study tours (GSTs) show much stronger participation in the 20–40% (43.5%) and 40–60% (26.1) categories.

The pattern is clear – at elite global schools short-term overseas trips have become the dominant vehicle for providing global exposure. This activity is shown

Table 12.5 Direct exposure activity is part of required or elective course student participation

	Required (%)	Elective (%)
Study abroad	14.3	85.7
Exchange programs	3.8	96.2
Global study tours	21.7	78.3
International internships	4.3	95.7
Research/consulting projects	10.0	90.0
Other	0.0	100.0

Table 12.6 Level of student participation in direct exposure programs

Percentage of cohort involved	80–100%	60–80%	40–60%	20–40%	0–20%
Study abroad	10.0	5.0	5.0	10.0	70.0
Exchange programs	4.0	4.0	8.0	8.0	76.0
Global study tours	4.3	4.3	26.1	43.5	21.7
International internships	4.5	4.5	4.5	13.6	72.7
Research/consulting projects	15.8	0.0	5.3	5.3	73.7
Other	0.0	0.0	0.0	0.0	100.0

Table 12.7 Academic credit is offered

	Yes (%)	No(%)
Study abroad	90.5	9.5
Exchange programs	100.0	0.0
Global study tours	82.6	17.4
International internships	43.5	56.5
Research/consulting projects	85.0	15.0

Table 12.8 Duration of foreign visit/student time involved

	1–2 weeks (%)	2–4 weeks (%)	1–2 months (%)	2–4 months (%)	4–6 months (%)	6 months and above (%)
Study abroad	25.0	25.0	5.0	35.0	5.0	5.0
International exchange	0.0	4.0	4.0	76.0	16.0	0.0
Study tour	60.9	34.8	4.3	0.0	0.0	0.0
International internships	0.0	4.5	36.4	54.5	4.5	0.0
Research/consulting	11.8	5.9	11.8	52.9	17.6	0.0

Table 12.9 Level of student interest

	Very strong (%)	Strong (%)	Somewhat strong (%)	Limited interest (%)
Study abroad	15.0	25.0	30.0	30.0
Exchange programs	19.2	26.9	30.8	23.1
Global study tours	34.8	39.1	21.7	4.3
International internships	17.4	17.4	39.1	26.1
Research/consulting projects	22.2	33.3	27.8	16.7

to have stronger participation at present compared to other direct exposure methods and earlier studies of international travel at accredited MBA schools.

12.3.4 Academic Credit

The research indicates that internships are least likely to have academic credit awarded. The rest of the programs are all in the "credit-yielding" category at the sponsoring MBA programs. Some clarification is in order here. Few schools will grant academic credit just for taking the overseas study tour. Such tours are often just one element of a set of course requirements, including readings, exams, research papers, and project presentations that comprise the academic requirements to receive academic credit. However, there are examples of global tours that are initiated and run by students or student organizations that are extracurricular or non-credit activities. The findings concerning academic credit are very comparable to the research of Curie et al. (2004) which found that over 90% of the schools in their sample awarded academic credit in conjunction with foreign travel programs and over 80% provided 3 or more credit hours for overseas travel and accompanying academic requirements. It is not known what the precise academic requirements were for granting the credits (research papers, reports, exams, etc.). See Table 12.7 for details here.

12.3.5 Duration of Visit

The research showed that the shortest duration of any of the direct global exposure activities were the global study tours. Most tours either last 1–2 weeks (60.9%) or 2–4 weeks (34.8%). Otherwise, study-abroad programs appeared to be activities that lasted a full academic term ranging from 2 to 4 months. These results also corroborate the findings of Curie et al. (2004) who found that most trips lasted for 2 or more weeks for full-time programs and 1–2 weeks for part-time programs. Shorter programs were found to be a better fit for part-time students' schedules because they traditionally had less flexibility in staying abroad. See Table 12.8 for details here.

12.3.6 Level of Student Interest

Nearly three-quarters of the responding schools felt that student interest in short-term study tours was either very strong or strong, while all other direct exposure activities received majority ratings in the "somewhat strong" or "limited interest" categories. This high interest in global study tours was in line with other research findings presented here, in that participation rates were relatively high for foreign travel-related courses even though these involved primarily elective courses. See Table 12.9.

12.3.7 Popular Locations for Global Study-Abroad Programs

The typical number of MBA tours offered by those MBA programs using short-term study tours was four to six countries within an academic year. Some of the major destinations for the programs were

- South America (Mexico, Argentina, and Chile)
- Southeast Asia (Vietnam)
- China, Japan, Korea
- East Asia (India)
- Europe (UK, Czech Republic, France, Poland, Ireland, Russia)
- Africa (South Africa)
- Middle East (Dubai, UAE)

12.3.8 Best Practices in Direct Global Exposure Programs

The survey included an open-ended item that asked participating schools to self-report their best practices in programs that are created to enhance their full-time students' global backgrounds. Importantly, nearly one-half of the open-ended comments dealt with some aspects of short-term study tours abroad. A few comments were made indicating that their best practices activities were in recruiting diverse international student cohorts and making available a large network of international exchange opportunities with partner MBA programs worldwide. Some comments described interesting programs initiated by their own students such as lunchtime "brown bag" sessions where country culture and "Doing Business In. . ." presentations were made by students from different countries and regions. Also, comments were made about program policies requiring a global experience with overseas travel by all students during the program. As noted, most of the comments made about tours included the launching of more short-term study tours and pairing these study tour activities with other interesting opportunities such as case writing, participating in "master classes," student research projects with clients overseas, and integrating study tours with a variety of courses and a variety of themes.

12.4 Summary of the Research

This study examined the use of direct and indirect global exposure program at leading MBA programs listed in the *Financial Times*' top 100 global MBA programs rankings. Both content analysis of program websites and an online survey of program administrators were used in the study. The research was based upon a framework for MBA program globalization (Fig. 12.1).

The results suggest, as the framework suggests, that indirect global exposure programs involving global courses, modules, cases, special events, and speakers were seen with great frequency, along with an internationally and culturally diverse faculty and student body. These top-ranked MBA programs are also increasingly prone to introduce programs that take their students abroad. Standard approaches have been semester-abroad studies, exchanges with partner schools abroad, and to a more limited extent, internships, consulting and research programs abroad. The area that is gaining the greatest usage among a large number of FT program is global study tours, particularly those that are connected with credit-bearing academic courses. Although the typical time spent abroad on business, government, and other site visits is 1–2 weeks, there may be traditional classroom sessions before the trip (get ready for the experience) and upon return (debriefing, what did we learn from the experience). Course requirements for the global study tours often involve projects with clients abroad, research reports, and introspective "cultural diaries" compiled by the students based upon their experiences. In short, students value these programs as they match their time and financial constraints as well as their strong desire to experience a global business environment. It appears as though the extensive use of the "indirect" methods of program globalization has stimulated the desires to take part in "direct" approaches.

The limitations of this study center on only using the *Financial Times*' list as the sample frame. Only looking at the "elite" schools leads one to ask: "Are these same patterns of MBA program globalization being practiced at business schools around the world, in general?" Even within the FT list the study is also limited due to the 34% response rate received. It is very likely that schools who have active globalization efforts within their programs would be more prone to respond. Further, the study made no attempt to explore the impact of the indirect and direct global programs on student perceptions, measures of cultural competence, or other program outcomes. These are certainly fruitful areas to be explored by future research.

12.5 Recommendations

The core of an MBA program's globalization approach is the indirect exposure tools:

- Curriculum – significant theory and applications coverage (global economy, cross-cultural management, international finance and marketing, etc.)

- Faculty – Those with breadth of experience and strong knowledge of multiple cultures and business environments
- Students – heterogeneous, multicultural group of learners themselves able to share significant global backgrounds

Note: a program cannot take any of the above as a given; all require "teasing" to bring out global perspectives. It is suggested that a flexible, menu-type approach be used with respect to fitting types of direct global exposure to the profile of the students and the academic program. Direct global programs are high impact and very popular with students. Again, a menu approach is suggested. For example, there may be four or five approaches for achieving a student's "global experience" requirement in his/her program. Students might even be asked to apply to the study-abroad, global study tours, consulting or research programs and submit a statement of how they see the selected mix of global exposure options fulfilling their educational or professional objectives.

Appendix 1: *Financial Times*' Top 30 Global MBA Programs

1. University of Pennsylvania: Wharton
2. London Business School
3. Columbia Business School
4. Stanford University GSB
5. Harvard Business School
6. INSEAD
7. MIT: Sloan
8. IE Business School
9. University of Chicago GSB
10. University of Cambridge: Judge
11. China Europe Business School
12. IESE Business School
13. New York University: Stern
14. IMD
15. Dartmouth College: Tuck
16. Yale School of Management
17. Hong Kong UST Business School
18. HEC Paris
19. University of Oxford: Said
20. Indian Business School
21. ESADE Business School
22. Lancaster Univ. Management School
23. Manchester Business School
24. Northwestern University: Kellogg
25. UCLA: Anderson

26. Emory University: Goizueta
27. University of Michigan: Ross
28. Duke University: Fuqua
29. Cranfield University
30. University of Strathclyde

Appendix 2: MBA Programs in the Electronic Survey Sample

US schools	International schools
Arizona State University, Carey	International MBA
Boston University	International MBA
Columbia University	Alberta MBA Program
Cornell, Johnson	China Europe International Business School
Duke, Fuqua	Hong Kong University (HKUST)
GWU	Indian School of Business
Ohio State: Fisher	Leeds School of Business
NYU, Stern	Nanyang Business School
Temple, Fox	University of British Columbia
University of Arizona: Eller	University of Toronto, Rotman
University of Chicago GSB	
University of Georgia, Terry	
University of Maryland, Smith	
University of Pennsylvania, Wharton	
University of Virginia, Darden	
University of Washington, Foster	
Vanderbilt University, Owen	
University of California/Irvine: Merage	

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Chapter 13
Innovation in Cross Border Learning

Christine Cope Pence and Catharina Wulf

13.1 Introduction

Designing an ideal business school with the appropriate, if not perfect, curriculum, staffed by the best professors or practitioners has been in continuous debate over the past decades. In the late 1950s, Gordon and Howell (Gordon & Howell, 1959, p. 127) wrestled with the dilemma of educating the student for an entire career as opposed to prepare him or her for the first job. More recently, Mintzberg and Gosling (2002) argue that "we now educate managers with a 1908 product that uses a 1950s strategy" (Mintzberg & Gosling, 2002, p. 65). In general, discussions about devising the best model for business education have vacillated between the following three paradigms: (1) trade school-vocational model, (2) scientific-research model, and (3) professional-clinical model. While the trade school model dominated the first half of the twentieth century, critics believed that it was not serious enough from an academic point of view. The scientific-research model was inspired by the disciplines of science and economics. It was criticized for being too far removed from the corporate world and thus lacking in "real world" relevance. The professional-clinical model was based on medical and law school curricula. It, too, had shortcomings particularly due to the fact that professional schools provided students with an exclusive, specific kind of knowledge in order to become an efficient doctor or capable lawyer (Clinebell & Clinebell, 2008). Compared to doctors and lawyers, anyone who wants to become a manager does not need any formal education or an official license to practice business (Khurana & Nohria, 2008). Contrary to professional schools, business schools are supposed to pave the way for students' life-long learning, preparing them for a variety of fields, such as management, marketing, finance, or non-profit organizations (Clinebell & Clinebell, 2008).

With the advent of the Internet and the widespread use of virtual communication, the concepts of distance and time have changed character. In today's globalized and interconnected world, they no longer constitute a barrier to communication. In fact,

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business professions require that academia prepare their future workforce for these communication changes. Business students have to be well versed in skills such as team building, entrepreneurship, negotiation, and leadership. They also need to have sound interpersonal and intercultural communication skills (Porter & McKibbin, 1988; Mintzberg & Gosling, 2002; Pfeffer & Fong, 2002; Navarro, 2008). The difficulty, however, as underlined by Khurana and Nohria (2008) is that formal education is often insufficient to teach these soft skills.

The trend for reforming business school curricula is reflected by the meteoric rise of corporate universities (Blass, 2005). Academia has responded with a plethora of offers and studies including the review of cooperative programs between universities and industry (Kessels & Kwakman, 2007). However, a clear, universally adopted response is still missing. In 2006, The Global Foundation for Management Education produced a concept paper in which it proposed the need for better global collaboration amongst educational institutions and industry (Global Foundation for Management Education, 2006). In this paper, the Global Foundation criticized the fact that most business schools and departments are too fragmented and either unable or unwilling to collaborate with each other due to their competition for position ranking by indices such as US News & World Report, Forbes Magazine, and the Financial Times. Thus, it is important to raise the question of how to ensure that the modern student benefits from a relevant and practice-oriented business education.

13.2 Research Overview and Methodology

Criticizing the lack of relevance of management education is not a new phenomenon. In recent years, scholars have continuously underlined the gap between business education and the challenges faced by practicing managers and the inadequacy of our teaching methods (Pfeffer & Fong, 2002; Mintzberg, 2004; Bennis & O'Toole, 2005; Augier, 2006; Tushman, O'Reilly, Fenollosa, Kleinbaum, & McGrath, 2007; Pfeffer, 2007; Navarro, 2008). According to these scholars, the borders between management theory and corporate experience have to be removed in order to prepare students for their lives outside of academia. Gosling and Mintzberg (2004) comment that current MBA programs give too much weight to standardized curricula and academic content. They also warn against the pure delivery of abstract business theories that are divorced from managerial context (Gosling & Mintzberg, 2006). According to these two writers, management cannot be equated with a science, a function, or a profession. Instead, management "is a *practice* – it has to be appreciated through experience in context" (Gosling & Mintzberg, 2004, p. 19). In short, they argue that the gap between the teaching process and the practical aspect of management has to be overcome. Raelin (2007) and others argue that today's "management students tend to be overly analytical, narrow, short-term oriented, hypertechnical and uninterested in lifelong learning" (Raelin, 2007, p. 499).

To change this stifling trend, we must remember that a student never learns in a vacuum. He/she is surrounded by various stakeholders: peers or fellow students,

facilitators or teachers, and the business community. A useful example, emphasizing a relevant, interactive, and practice-oriented approach to learning, is the model of social constructivism. Inspired by Piaget (1954), Vygotsky (1962, 1978), and others, social constructivism argues that the individual cannot be dissociated from his/her social environment. "Rather, we should conceive of individual and environment as factors that mutually shape each other in a spiral process of growth" (Daniels, Wertsch, & Cole, 2007, p. 2). Social constructivism places learning and learning problems in the context of human interactivity. The acquisition and construction of knowledge is a dynamic process that evolves steadily, whilst involving different members of a given social community.

Raelin (2007) supports this constructivist epistemological stance, arguing that "knowledge is not received from outside but is constructed by our own understanding of the world we live in. Learning occurs when we adjust our mental models to accommodate new experiences" (Raelin, 2007, p. 504). He emphasizes three tenets: (1) a readiness within the student to learn from experience; (2) the willingness to share knowledge with others; and (3) the confidence to construct new knowledge (Raelin, 2007, p. 509). In his "epistemology of practice," Raelin stresses the interactive component of learning:

Our model (. . .) will hold that learning often arises from an interactive contention among a community of inquirers. Indeed, students as coinquirers [sic] with their teachers have the capacity to construct knowledge if given both the learning resources and encouragement to do so. Constructivist knowing of this nature is social because learners seek to know in conjunction with others who, too, are inquiring about the problem at hand. (Raelin, 2007, p. 504)

In quoting Knowles (1980), Raelin differentiates between "andragogy" and "pedagogy." While the latter is associated with the traditional transmission of knowledge, in the andragogical approach, "students are encouraged to be more autonomous in their actions (. . .) and more capable of accepting greater levels of responsibility for their own and others' actions" (Raelin, 2007, p. 509). This call for greater autonomy is also expressed by Gosling and Mintzberg (2004) who criticize the overpowering role of the teacher: "There is too much teaching and not enough learning in much of today's management education, too much control of the classroom agenda by instructors" (Gosling & Mintzberg, 2004, p. 19). Instead, faculty should adapt itself to the learners and cede some of their power to the classroom (Mintzberg & Gosling, 2002). In other words, teachers are not dogmatic preachers of a "fixed truth" but mentors or facilitating environments who guide the learner along an explorative path of steady progression and self-reflection. As Mintzberg and Gosling (2002) write, "Reflecting does not mean musing; it means wondering, probing, analysing, synthesizing – and struggling" (Mintzberg & Gosling, 2002, p. 67). This emphasis on reflection goes beyond simple quantitative measurements. "Teachers certainly have to introduce formalized knowledge (. . .) but that knowledge must meet the needs that managers bring to the classroom and resonate with their extensive knowledge, much of it tacit" (Gosling & Mintzberg, 2004, p. 20). In a similar vein, Raelin's "epistemology of practice" calls out for a "deep immersion in lived experience that is often tacit" (Raelin, 2007, p. 506). Along with Raelin, Brown (2006) advocates

a social constructivist framework for learning, "which is built not on the traditional 'transmission of knowledge' model, but on the assumption that students are encouraged to become active partners in the construction of knowledge with their peers, academic staff and the wider social context in which they work. The starting point is to determine "*what it is the learners need to be able to do* and in what contexts, rather than concentrating on content to be covered and 'learned' " (Brown, 2006, p. 7).

13.3 Purpose of Study

Following the social constructivist model, the above body of research calls out for a collaborative as well as interdisciplinary approach to learning, centered on the learner's need to progress and be immersed in business-like situations. In order to comply with this need and for the purpose of this study, we address two interrelated issues in business education. The first issue is the persisting problem of functional silos in the world of academia that have resulted in a lack of collaboration between faculty members who belong to different departments or even schools, such as engineering and business. In his essay, *The MBA Core Curricula of Top-Ranked U.S. Business Schools: A Study in Failure?*, Peter Navarro recently pointed out that the current situation with "entrenched faculty" (Navarro, 2008, p. 119) poses a problem to prepare business students with the relevant skills for their corporate lives. Similarly, in her interview of John Reed, Augier (2006) argues that "to provide insight into the complex problems that businesses face, we need to cross disciplines because the problems themselves are interdisciplinary" (Augier, 2006, p. 85). The second issue deals with the above-mentioned gap between learning in the traditional classroom and in the field. As student numbers per lecture increase exponentially, student ability and willingness to participate in classroom activities diminishes.

The objective of our chapter is to present a solution that steps outside the functional academic silo to merge in-class and experiential activities designed to enhance the student's learning experience and to meet the threefold win–win situation for all stakeholders: (1) Students are challenged by the learning outcome. They obtain quality employment as well as external research funding for their business projects. (2) Companies and local business communities involved in new cross-disciplinary projects help with the building of viable businesses thanks to the new technologies developed in the classroom environment. (3) Faculty creates permanent links with new industrial partners which lead to the financial support of new research projects. Through our unique educational pilot conducted at University of California Riverside, the "hybrid learning team inquiry model" (HLTIM), students and faculty from engineering and business worked together with regional business leaders in a cross-disciplinary learning team. The aim of this project was to bridge stakeholder silos, transcend traditional curriculum boundaries, remove academic hierarchies, engage

students, faculty, and the business community in experiential learning, and bring together two completely separate faculties: engineering and business.

13.4 The Hybrid Learning Team Inquiry Model

13.4.1 The Context for the HLTIM

In 2006–2008, at the University of California Riverside, a pilot project was developed to bridge the traditional silos of expertise and learning across the university campus (College of Engineering-Graduate School of Management) with the statewide regional business community. As illustrated in Fig. 13.1, some one-way communication existed between the students from both engineering and business with California Innovation Corridor (CIC) businesses. However, between engineering students and business students there was no communication through any kind of formal coursework or academic program. Engineering academic units, through funded research projects, had some limited existing relationships with the CIC. Engineering students at the undergraduate level also participated in some local internship programs within the CIC. In most cases, the programs were restricted to laboratory research collaboration. Business academic departments had few formal ties with the CIC. Business faculty research projects involved few to no students. Internship programs were handled by staff administrators with little coordination with the faculty.

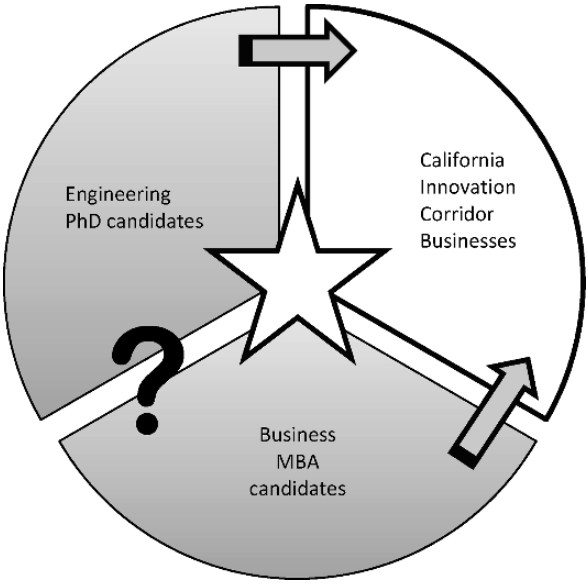

Fig. 13.1 Hybrid learning team inquiry model

13.4.2 Desired Outcomes of the Project

The objective of this pilot program was to create multidirectional communication and collaboration links amongst all of the participants so as to improve regional development through academic excellence and relevance. Ultimately, the goal was to extend the project to other university academic units, beginning with the life sciences. Each of the participating members (faculty, students, industry) had its own particular desired outcome, which heretofore had not been expressed in any kind of formal relationship (Fig. 13.2). In on-campus workshops, faculty and students from both academic units stated an interest in having better ties with industry (Abbaschian, Pence, & Boretz, 2008). Industry, through a number of regional meetings including the local technology association and the business angel group, continued to seek ways to collaborate with the university in order to both profit from the research and to improve the hiring prospects for local candidates (http://www.innovatecalifornia. net/success/search/details/participant/51).

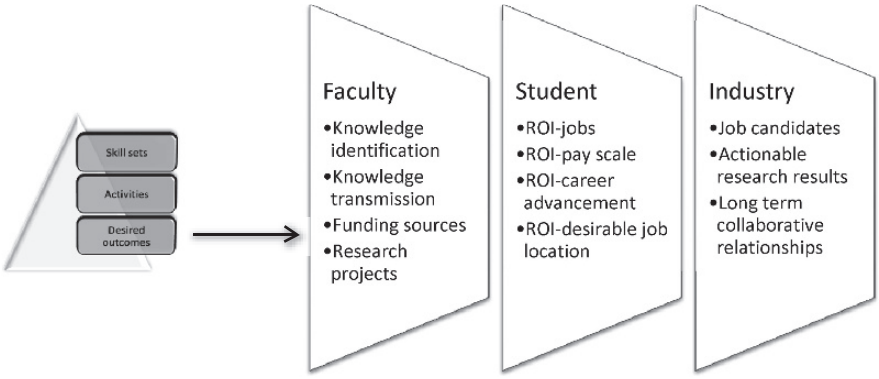

Fig. 13.2 Desired project outcomes

13.4.3 Project Methodology, Process, and Activities

The HLTIM pilot project was housed in a 4-credit, multicultural elective MBA entrepreneurship course entitled "The Living Business Plan," which was offered in two consecutive spring quarters (2007–2008) at the University of California Riverside's A. Gary Anderson Graduate School of Management. Each course was conducted over a 10-week period and was considered to be the end course in a three part series (Fig. 13.3). Participants in the course both years were engineering PhD candidates and business MBA candidates. The course description, objectives, and grading assessment criteria were as follows:

Course description. Building successful long-term business implies good planning. Focusing on the entrepreneurial process from conception to birth of a new venture, students explore the process of developing an opportunity assessment,

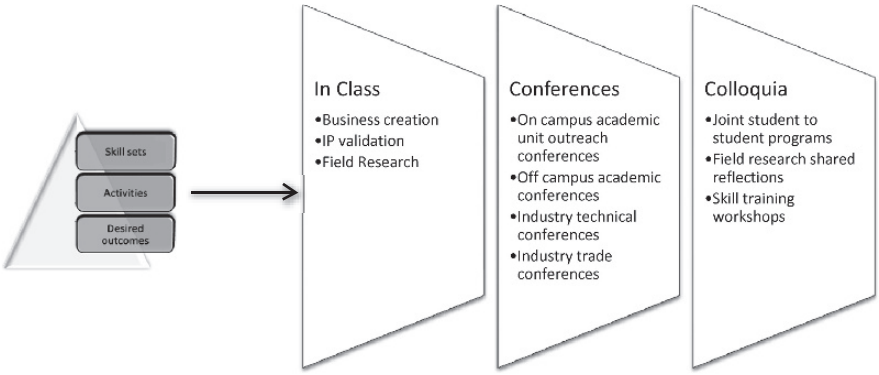

Fig. 13.3 Project activities

structuring and rewarding the founding management team, and marshalling necessary critical resources through the development of a full-scale business plan.

Course objective: Upon completion of the course, the student will have a good understanding of the major issues involved in building businesses as recorded by the business planning process. Students will experience the dynamics of teamwork from the identification of the business opportunity to the final realization of the business plan and its corresponding business.

Grading: 25% individual participation and attendance; 50% group participation in class and at the obligatory offsite events and projects; 25% final exam project and presentation.

Projects were assigned which obliged students to reach out across campus, into the community, and online in order to complete the tasks. The same students worked together in an ongoing 2-year field research project funded by the California Space Authority under the auspices of the US Department of Labor to study drivers of innovation and entrepreneurship within California Innovation Corridor businesses. This project, the "Workforce Innovation in Regional Economic Development" (WIRED), permitted ongoing collaboration between the student teams, their academic departments, and their regional business prospects, which transcended the confines of the individual spring quarter course timeframe (see http://www.innovatecalifornia.net/success/search/details/participant/51).

Using the social constructivist framework for learning, multidisciplinary teams were created to engage actively in the exchange of information, performance of tasks, and communication of tacit learning with peers and colleagues external to the pilot project. The two focal activities which provided continuity to the learning teams were (1) course completion requirements for two entrepreneurship classes and (2) WIRED project completion.

13.4.4 Year One

In the first entrepreneurship course (spring 2007), the joint student teams (1) defined the research methodology which was to guide the rest of the WIRED project and (2)

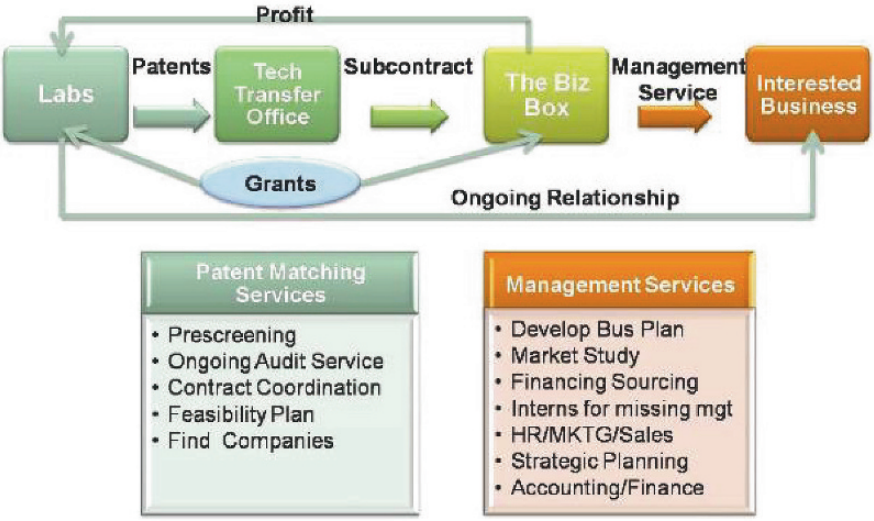

Fig. 13.4 The BizBox model spring 2007

developed a real business venture for on-campus university technology commercialization integration within the business school, the engineering college, and the local business community. Working together to bridge their knowledge sets, the engineers and business students set up virtual collaboration teams which focused first on the field-based research model. By the conclusion of the spring 2007 academic quarter, preliminary field-testing of the research model (Fig. 13.4) was completed by the student–faculty learning teams. Team members who continued with the project after the quarter conducted the balance of the research process over the course of the following year.

In developing the business venture, which evolved from their newly attained knowledge from the WIRED project, the learning teams defended their "BizBox" concept to the relevant on/off campus stakeholders. This experience provided a valuable opportunity for them to demonstrate the knowledge they had acquired as a result of this cross-disciplinary teaching approach. The resulting business concept, in a slightly modified format, currently is under consideration by the university for adoption.

13.4.5 Year Two

In the second-year class (spring 2008), MBA candidates worked with engineering PhD candidates to build real businesses around engineering lab results. As both disciplines had very different curricular content and modes of learning, the bridging of the academic silos opened each to a different way of viewing innovation. The MBA student traditionally works in teams and conducts business case analyses.

The engineering PhD student traditionally works individually on laboratory-based research in which results are measured through scientific experimentation.

They each had to learn the language of the other in order to begin the process of working on the project. In this case, the MBA student was well versed in financial and marketing modeling, whereas the engineering PhD student was educated in scientific hypothesis testing for specific laboratory projects. Having identified this need, the students first conducted several peer-to-peer colloquia in which both disciplines were brought together through student-led training sessions. As an example, in one of the sessions, engineering student poster contestants were trained in the techniques for preparation and presentation of their research as a business pitch to potential business investors. The traditional scientific poster focuses on the research methodology and scientific conclusion rather than the potential business application. This peer-to-peer learning process obligated the engineering student to learn how to communicate research results to non-technical people; the business student learned about the basics of engineering research and research methodology. The final proof of concept for this particular peer-to-peer session was witnessed by the business and academic community during the annual engineering outreach conference in which these poster contestants demonstrated their new found skills. Financial rewards, funded by the business community, were given to the best poster and its presenter. Judging was based on the quality of the poster and the presenter's ability to explain the viability of its potential business application (Katzanek, May 16, 2008).

For this specific entrepreneurship class, two projects were embedded in one: (1) the developing of a patentable invention and (2) the building of a business plan around the invention. The deliverables consisted of (1) a completed entry into the Collegiate Inventors Competition (http://www.invent.org) funded by the Abbott Foundation and the US Patent and Trademark office; (2) a completed business plan using a well-recognized software package Palo Alto Business Plan Pro (http://www.paloalto.com); and (3) a full defense of the project as a business pitch to an audience of peers, faculty, business representatives, local agencies, bankers, and business angels.

As most of the student participants were either fully employed in business or in the research laboratory, the option of frequent physical meeting times for project development was not feasible. The class did meet physically once a week, but students worked on a daily basis through virtual collaboration. As a course requirement in order to accomplish delivery of all of the executables, students used an online project management program (www.zoho.com) in addition to the course Blackboard Wiki and Blog. In order to complete such an ambitious program for a 10-week course, the choice of using project management tools was essential for organizing tasks, milestones, and related communication. Since the Zoho site is one of the better open source offers, it was selected for the simplicity of access, use, and visual statistical reporting features.

The Blackboard Wiki permitted the different teams to view compiled results of their ongoing work. The advantage of this approach was that the motivation to compete on a friendly basis was inherent in the weekly progress reporting. Though the teams were not in direct competition, the level of professionalism rose as each

viewed the others' accomplishments. Through the Blackboard Blog, individuals commented on each other's work. On the blog, new information and suggestions were provided to the other teams by all class participants and the professor. The blog format ensured ongoing categorization of content in one central place, thus eliminating the need for multiple emails.

All communication had to be documented, including any virtual chatting that took place through the use of virtual tools such as SKYPE. Posted documents on the Zoho worksite (as well as on Blackboard) allowed easy access for progress validation as well as an opportunity for faculty advisement. Validation of student work quality is one of the most difficult aspects of the professor's grading obligation. It was essential for evaluation that physical traces of the work-in-progress be visible.

During the weekly class session, students presented their projects to obtain feedback from their peers and faculty. The weekly set of deliverables consisted of blog discussion, Wiki development, Zoho Project Management Site update, and multimedia learning for in-class discussion. They involved the business community when necessary to procure additional validation at each stage of the development. The on-campus tech transfer office assisted students with the patent search and application process. Faculties in the relevant disciplines were consulted regularly. In order to accomplish the entire project's learning objectives, students had to use all the knowledge that they had garnered from prior coursework in addition to a cursory knowledge of the skill sets from those colleagues who came from the other cross-campus disciplines.

The final business plan pitch to the community resulted in a financing offer from a large business angel network. As part of this offer, students were invited to make their sales pitch to the full angel network constituency who would in turn consider their project for future funding. The project defenses were validated. The newly created companies were ready "to go." Thanks to this group project, students acquired a portfolio element for their curriculum vitae that bridged academia and the business world as well as business and engineering. Additionally, learning objectives were validated through regular monitoring of the development stages. Student evaluations of the course have been extremely encouraging. They gave very positive returns on the university's formal evaluation system results in addition to the informal comments received through email and in person. Interestingly, other on-campus units have requested to participate in the next course offering. Several business people from the local community also offered to have an active involvement in this classroom approach.

13.4.6 The Balance of the WIRED Research Project

The initial learning teams' membership evolved between years one and two of the project. Attrition occurred primarily within the MBA student group due to graduation, though enough remained in the program to maintain continuity over the HLTIM project's 2-year time frame. New participants from both engineering and business student bodies and faculties joined the final phase of the funded research

project from June through September 2008. The entrepreneurship classes in both years continued to participate in the ongoing field research. By the beginning of the second year most of the field studies had been completed. The learning teams proceeded to develop an online research instrument to validate their field interview conclusions. Results and progress reports were presented in a number of regional venues. The final report for the California Space Authority was presented on November 6, 2008, to all participants in the WIRED project (Abbaschian et al., 2008).

13.4.7 Final Project Outcome

This project-based approach to teaching allowed us to reach across the traditional academic-institutional silos. Students from diverse disciplines confronted each other's background and knowledge to tackle projects jointly. Through the use of virtual communication, students experienced first-hand a new way of bridging borders and capturing information for further exploitation. In this particular case, the ultimate user communities (business and university tech transfer office) participated in the project development and in the validation of the final product's adoption potential. Academia and business united around a mutual interest and need (Fig. 13.5).

The exchange of skill sets at all levels was considered valuable (Abbaschian et al., 2008). Graduate engineers and business students from this program have been hired by regional technology start-up businesses in biotechnology, information systems, nanotechnology, and new energy. Others were hired by well-established academic and industrial research institutions. New research contracts and relationships were developed between industry and academia in areas not yet explored through current grants. Other academic units on campus are exploring ways to perpetuate the model, in spite of the difficult economic forecast that came at the end of 2008.

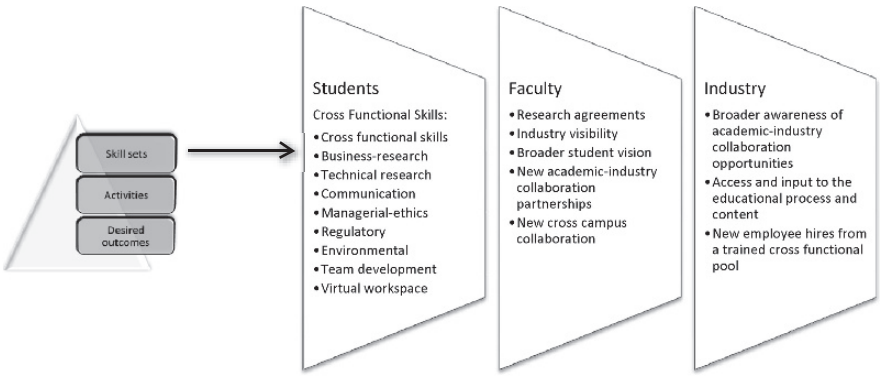

Fig. 13.5 Project results

13.5 Conclusion

Lessons learned. From the HLTIM project itself, it was eminently clear that the stakeholder silos needed to be bridged. Each of the stakeholders came away from the project richer in knowledge. Knowledge was constructed step by step through the stakeholders' ongoing collaboration with each other. This brings us back to our earlier discussion of social constructivism and Raelin's "epistemology of practice," particularly the latter's interactive, practice-oriented, and dynamic aspect of learning, in which each participant plays a significant role as he or she influences his or her social environment. Students obtained quality employment as well as new outside research funding for their ongoing projects. New businesses were established as a direct result of the project. The local business community took on the relay of building viable business around the new technologies developed in the classroom environment. Faculty established ongoing relationships with new industrial partners, which has led to the funding of new joint research projects. The university as a whole demonstrated its ability to further the economic viability of its community. The difficulties of imagining the HLTIM and then actually conducting the project were not obvious at the beginning. In the end, the most important lesson learned was that this kind of cross-fertilization of skills, competences, and knowledge across a wide stakeholder map requires an enormous amount of pre-negotiation and preparation. If the infrastructure within the academic community is fractured, it is difficult to build consensus for long-term replication.

Problems encountered. Perhaps the most difficult aspect of this pilot project was that it was structured to transcend the traditional curriculum boundaries in terms of both time frame and multidisciplinary activity-based learning. In this case, combining course objectives with funded grant obligations required the faculty member to have discipline-transferable skills as well as industry experience in order to be credible to both academic schools (business and engineering) and to the regional industry participants. The funded grant (WIRED) was secured through the Engineering College while the Entrepreneurship course was conducted in the School of Management. The HLTIM technically had two administrative hierarchies responsible for conduct and evaluation of the results. As these two academic entities had no formal agreements regarding programming, FTE exchange, or even teaching outcomes, evaluation of the overall success of the pilot project was divided according to the course grading outcome for the School of Management and to the acceptance of the grant results by the issuing authority for the College of Engineering. Students from the individual academic entities chose to participate based upon their own perception of the overall project value to their career advancement. Replicability necessarily will require mutual agreement from the academic hierarchies. This constraint necessarily moves the project into the political domain of academia and outside of the actual learning benefit of the project itself.

This pilot project fell directly into the arguments made in the earlier part of this chapter concerning the removal of functional academic silos and teaching–learning constraints for life-long educational objectives. The teaching–learning dilemma

emanates from the debate over the importance and necessity of applied practitioner experience to the formal classroom learning. While academic hierarchy did not oppose the conduct of the project, they did not help with the definition of real outcomes either. This laissez-faire attitude put the entire burden of success and failure directly upon the faculty member. It also left the individual hierarchies with less ability to lay claim to the good will established with the industry participants and therefore to the ownership of eventual outside funding.

Possible solutions. Solutions to the hierarchy politics remain outside the context of this chapter as this requires a larger scope of responsibility and stakeholder expectation than can be resolved by the individual faculty member. Suffice it to say, many universities have and continue to wrestle with these difficulties. Entrepreneurship as an accepted field of research continues to be a source of discussion. Engineering colleges often contain entrepreneurial centers under their auspices separate from any activity, which might be conducted in the business schools on the same campus. Even in the best of the universities in California, such as Stanford and the University of Southern California, separate entrepreneurship is lodged in both academic hierarchies as from one another. For project replication purposes, a commitment from both academic units would be helpful. The outside business community is concerned with results in terms of shared research outcomes and workforce development. With increasing academic unit coordination, the necessary research funding from outside sources likely will be more accessible. Validating comments from industry participants in the WIRED grant illustrated the willingness to support continued educational partnerships, such as were established by the HLTIM project.

Implications for business education scholarship. Academic rigueur and business relevance drive the design of quality education offers. The hybrid learning team inquiry model (HLTIM) pilot project was designed to foster quality education across traditional silos of excellence in academia and the business community. Engaging students, faculty, and business community in experiential learning is an ongoing process that extends beyond the confines of the individual classroom-centered course. The research model for understanding regional drivers of innovation developed through the WIRED project is representative of overarching educational projects that can provide cross-disciplinary experiences for students and faculty. This particular research project has brought the university and its external stakeholders together around a common long-term interest. It is a project which can foster continuing applied research activities for both academic units within the university beyond a single classroom. The classroom provided a focal point exposing theoretical bases. The applied research project provided the opportunity to work together in cross-disciplinary learning teams to test the theory.

Through the incorporation of new forms of content and delivery tools, the design of effective cross-disciplinary projects has become less burdensome for the tracking of the phases of project accomplishment. Qualitative assessment of short-term project results can be based upon tangible intermediate and final deliverables. Evaluating the level of long-term learning retention still remains difficult with this kind of experiential learning project. However, it is likely that the cross-fertilization

mentoring, inherent in such an approach as the HLTIM project, will have important consequences in the quality of the educational experience for all stakeholders. Next phases in the model design need to address measurement dimensions of the pilot-learning concept for tractability, replicability, and validity of learning retention.

Note

This project was funded partially by the California Space Authority, through the California Labor and Workforce Development Agency, as part of the California Innovation Corridor "Workforce Innovation in Regional Economic Development (WIRED)" grant from the Employment Training Agency of the US Department of Labor (see: http://www.innovatecalifornia.net/success/search/details/participant/51).

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Chapter 14
Master Thesis Supervision

Judith H. Semeijn, Janjaap Semeijn, and Kees J. Gelderman

14.1 Introduction

An increasing number of educators are actively involved in master thesis supervision as part of their daily responsibilities. Master of Science degrees are becoming increasingly popular, with a master thesis required for the completion of the degree program. As a result, the supervisory staff involved in the supervision process at universities and institutes of higher learning is broadening and includes people with limited supervisory experience.

At the same time, the economic value of the competence in thesis writing as reflected by the grade obtained is being recognized. Better master thesis results improve a student's chances to obtain an academic and matching job in the labour market entry phase (Semeijn, Velden, Heijke, Vleuten, & Boshuizen, 2006). It is argued that the master thesis reflects an integrated type of competence that students need to acquire and develop in their education. Taking responsibility for proper supervision seems therefore all the more important.

Academic reputation is also at stake in the master thesis supervision process. The supervision process is included in evaluations during academic visitation and accreditation procedures. For instance, the Dutch-Flemish Accreditation Organization (NVAO) requires for a master degree that the student be a part of a community of scholars, and that the thesis output meets scientific criteria (NVAO, 2003).

However, the literature, as well as academic practice, appears severely lacking as to how supervision should be carried out or organized by departments and functions. One category of literature concerning thesis supervision takes the perspective of the student, focussing on "how to write a thesis" (see for example Cunningham, 2004; Teitelbaum, 1998). Numerous authors focus on PhD supervision, with useful insights for PhD supervisors (e.g. Delamont, Atkinson, & Parry, 2001; Marsh, Rowe, & Martin, 2002; Burgess, Pole, & Hockey, 1994). Also, special cases are examined, such as the quality of action research, compared to traditional research

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thesis writing (Zuber-Skerrit & Fletcher, 2007; Hauck & Chen, 1998). A growing stream of research focuses on blended learning possibilities (see for example Picciano & Dziuban, 2007; Bonk & Graham, 2005; Hwang & Arbaugh, 2006; Arbaugh, 2008). Although relevant for teaching in general and in a distance learning context, this literature largely ignores thesis writing and supervision.

As to academic practice, no particulars are given in the NVAO requirements, nor is the topic of thesis supervision included in the Basic Educational Qualification, used at Dutch universities (BKO, 2006).

The current situation in supervising master theses seems therefore one of making the best of it, without prior evidence-based knowledge. Different approaches are also present in postgraduate supervision (Rau, 2005). Since supervisors appear to differ in the amount of supervising experience and in preferences as well, guidelines based on evaluation of these differences may be helpful. Given the growing number of master thesis students and the importance of the thesis supervision process to both students and supervisors, how can educational departments best meet the needs of this particular group of students, so that they may successfully complete their degree programs and start their careers?

14.1.1 Approach

This study makes a first step in acquiring evidence-based knowledge, using survey forms completed by business graduates (of the Faculty of Management Sciences of the Open University in the Netherlands). What makes these data interesting is that different types of supervision (aspects) are distinguished for evaluation in the data. In addition, distance learning is an important feature of the Open University, which has led to differing types of organizing master thesis supervision. Questions that we like to answer with our exploration are as follows: What can be helpful from these data regarding current practice? And for diverse practices, is there any evidence for one of the practices to be more successful? Can we already derive some guidelines for good supervision of master students?

14.2 Literature Review

As argued earlier, academic literature has only limited applicability to supervising Master of Science students during their thesis. Thomas (1995) observes the lack of supervisor guidelines. Thomas shares her supervisory experience and presents a program for good supervision practice, given the lack of evidence-based alternatives, emphasizing the importance of social support and networks. Guidelines for graduate students have been available for decades (e.g. Buswell, 1932; Allen, 1973; Long, Convey, & Chwalek, 1985), unlike guidelines for supervisors, originating from managerial thoughts on successful performance (Dillon & Malott, 1981; Garcia, Mallot, & Brethower, 1988), and more recently Romme (2003), based on organizational studies. Empirical studies involving large groups of master thesis

students are lacking. Before exploring our survey data, we briefly review three areas of literature that seem to have bearing on the topic of master thesis supervision:

1. "How to" guidance for thesis students: Literature for master students that is helpful during the writing of their master thesis appears sufficiently available (Mauch & Birch, 1998; Cunningham, 2004). Typically, a recommended format for the thesis is given, with headings and explanations on the required contents. Although useful and adding structure, also for the supervisor, it leaves much room for additional guidelines for good practice. Thomas (1995), arguing for active supervision, divides the supervision process into four categories of activities: the provision of a social-support network, the provision of technical-support information, the setting of specific short-range goals and regular feedback on the performance. In our search for best graduate-level supervision practice and guidelines we now turn to PhD supervision, which has attracted more rigorous investigations and associated literature.
2. PhD supervision: Literature on supervision of PhD students (postgraduate) appears readily available (e.g. Ryan & Zuber-Skerritt, 1999; Tinkler & Jackson, 2000). Delamont et al. (2001) state that "neither undergraduate teaching nor postgraduate supervision comes 'naturally"'. The organization and quality of postgraduate supervision seems to attract more academic attention than the likewise important organization and quality of pre-graduation supervision. However, this attention is not systematically sustained by empirical data and frequently takes the form of well-intended professional advice. Given the lack of specifically focused literature and more evidence-based findings, what can we learn from the PhD supervision guidelines at this stage? Delamont et al. (2001) emphasize

   > The balance between planning and not undermining the student's autonomy in writing, how to let the student do a good literature review, how the student can be encouraged to carry on, how (supervisors and students need) to focus on broad academic socialization within the relevant discipline and how to handle the more formal (institutional) regulations in supervising.

   These suggestions are particularly useful when there is a one on one relationship between student and supervisor, with a limited number of PhD students being supervised by one staff member (Holligan, 2005). In contrast, regarding master thesis supervision, academic departments may face over 100 thesis students per year, and individual staff members may end up supervising 10 or more thesis students at any given time. Therefore, we turn to group-oriented educational literature for guidance.
3. Group-oriented supervision and problem-based learning (PBL): A considerable body of literature is available regarding teaching and working in groups (i.e. teamwork by students), signifying an important research stream in education. A decade worth of EDINEB book series has covered many aspects of group-oriented education. Literature supportive of PBL is not scarce (e.g. Gijselaers, 1996; Dochy, Segers, Van den Bossche, & Gijbels, 2003; Savin-Baden & Major, 2004; Schmidt, Vermeulen, & Van der Molen, 2004). Thomas (1995) emphasizes the importance of social support and networks. Working with groups of students

may thus be beneficial in master thesis supervision, by providing helpful conditions for better (process-oriented) supervision.

The so-called thesis circles or thesis rings refer to a special type of group work, based on organizational design principles. In this method, the process of writing a thesis and supervising it is considered to represent a "real" organization with its own rules and procedures (Romme, 2003). The method is used on a small-scale basis and both supervisors and students seem positive. However, empirical data and analyses on this particular supervision method, as well as other ways of organizing the thesis supervision process, are lacking. We like to contribute to filling this void by providing our analysis as to which aspect of supervision approach and organization can be considered most beneficial for completing a master thesis, based on a survey of recent MSc in business graduates.

14.3 Methodology

A sample of 240 recent (mid 2006–end 2007) MSc students graduating with a business degree of the Open University of the Netherlands was used. As part of the standard quality control system, each master student graduating from the Faculty of Management Sciences is asked to complete an extensive evaluation form, covering different aspects of supervision. This request resulted in 139 completed forms, detailing the information on grade obtained, evaluation of supervision received and various other supervisor and supervision aspects.

Student evaluations of different aspects of the supervision process include supervisor responsiveness and overall supervision climate. The qualification of individual staff members, research time available to them and their publication output can be used to check for association with the result of the thesis process. The final grade given by the supervisor together with a co-supervisor, the process duration in months and the overall evaluation by the student together reflect the outcome of the thesis process. The use of thesis circles, embraced in varying degrees by different supervisors, can also be examined as to its effect on quality and efficiency of the supervisory process. Approximately 50% of all thesis students are supervised in a thesis circle context.

We start by examining which variables have an effect on the student evaluations. Then we will relate these evaluations to outcomes concerning efficiency and effectiveness, using relevant control variables. First, using Pearson correlation, we show relations among the different supervision aspects. Content-oriented supervision refers to activities of the supervisor such as advising relevant theoretical literature and discussing the relevant theoretical background for the thesis. The item in the survey referring to this aspect is "I am satisfied with the provided content-related supervision" (on a scale from 1 to 5, meaning very little to very much). Methodological supervision refers to issues as helping in the construction of a validated questionnaire and choosing the correct statistical procedure for analysis. In the sur-

vey, it is measured by "I am satisfied with the provided methodological supervision" (1–5). Process-oriented supervision refers to, for example, motivating the student and help in the planning of deadlines. In the survey, this aspect is dealt with by the item "I am satisfied with the provided supervision on the continuation of the process."

We compare the specified content-related, process-oriented and methodological supervision and their relation to the final grade obtained, using regression. We also examine the use of thesis circles and its observable benefits for the thesis process and outcome.

14.4 Results

Pearson's correlations for all relevant variables are shown in Table 14.1.

As can be seen in Table 14.1, final thesis grades average out to 7.2 on the 1–10 scale. The mean duration of the thesis process amounts to approximately 20 months. Note that the length of the master thesis process is longer in distance education, since it attracts students that combine their studies with work and family care.

Evaluations on the different approaches in supervision do correlate considerably, with correlations up to a significant 0.70 between methodological and process-oriented supervision (bold in table). The evaluations of students on these aspects are remarkably similar, indicating that supervisors who easily provide methodological guidance are also capable of motivating students to complete the process.

The three supervision aspects correlate highly with the overall evaluation of the supervision process. Table 14.1 further shows that the use of thesis circles is unrelated to any of the supervision aspects.

Having a PhD is correlated to having research time, which is in line with faculty policy. Therefore, in further analyses we will only use the PhD qualification (0–1). Supervisors with a doctoral degree seem appreciated by students for their content-related supervision. These supervisors are likely to be intrinsically motivated to lend their experience. We further note that research output by a supervisor (0–1) is positively related to responsiveness of the supervisor (scale 1–5, referring to not fast at all to very fast), which in turn seems to have a positive influence on overall duration of the thesis process. Apparently, supervisors with publication experience have a quicker grasp of thesis drafts and are able to formulate more swiftly recommendations to help students on their way.

A comparison of the different supervision aspects to thesis result is presented in Table 14.2.

Student evaluation of methodological supervision appears to be most influential factor to thesis grades. Content-related supervision evaluation and supervisor qualifications do not seem to have any impact on the thesis results. To explore the effects of using thesis circles as an organizing principle on the resulting grades, Model 2 shows the results including the thesis circles. In the sample of 136 cases, a total number of 76 students wrote their thesis in a thesis circle context. The other

Table 14.1 Descriptives and correlations of the variable

Variables		Mean	SD	N	Correlation coefficients										
					1	2	3	4	5	6	7	8	9	10	11
	Supervision evaluation														
1	Methodological supervision (1–5)	3.77	1.07	139	–	–	–	–	–	–	–	–	–	–	–
2	Content-related supervision (1–5)	3.88	1.11	139	0.446**	–	–	–	–	–	–	–	–	–	–
3	Process-oriented supervision (1–5)	3.83	1.15	139	**0.700****	0.475**	–	–	–	–	–	–	–	–	–
4	Supervision responsive-ness (1–5)	4.12	1.03	139	0.373**	0.350**	0.342**	–	–	–	–	–	–	–	–
5	Supervision atmosphere (1–5)	4.62	0.62	139	0.326**	0.238**	0.330**	0.244**	–	–	–	–	–	–	–
6	**Overall evaluation** (1–10)	7.65	1.26	139	**0.673****	0.581**	**0.676****	0.534**	0.411**	–	–	–	–	–	–
7	Supervision in thesis circle (0–1)	0.54	0.50	140	−0.118	0.028	−0.058	0.016	−0.056	−0.018	–	–	–	–	–

Table 14.1 Continued

Variables		Mean	SD	N	Correlation coefficients 1	2	3	4	5	6	7	8	9	10	11
	Outcome variables:														
8	Final result master thesis (1–10)	7.28	0.76	137	0.409**	0.159	0.374**	0.194*	0.225**	0.403**	−0.008	–	–	–	–
9	Length of thesis process in months	20.17	15.09	113	−0.152	−0.150	−0.123	−0.214*	0.010	−0.235*	−0.042	−0.115	–	–	–
	Supervisor characteristics:														
10	PhD (0–1)	0.53	0.50	137	−0.005	0.181*	−0.015	0.120	−0.039	0.143	−0.130	−0.005	−0.054	–	–
11	Research time availability (0–1)	0.72	0.45	137	0.067	0.180*	0.069	0.087	−0.033	0.167	0.035	0.104	0.037	**0.674****	–
12	Publication output (0–1)	0.36	0.48	137	0.074	0.112	0.012	0.212*	−0.065	0.096	−0.075	0.029	−0.025	0.516**	0.471**

*Correlation is significant at the 0.05 level (2-tailed) and ** correlation is significant at the 0.01 level (2-tailed).

Table 14.2 Regression estimates of supervision aspects, supervisor characteristics

	Model 1		Model 2	
	B	s.e.	B	s.e
Constant	7.277*	0.091	7.316*	0.119
Supervision aspects				
Methodological supervision	0.291*	0.072	0.286*	0.073
Content-related supervision	−0.043	0.071	−0.038	0.072
Supervision responsiveness	0.039	0.068	0.040	0.069
Supervision atmosphere	0.078	0.065	0.077	0.065
Supervisor characteristics				
PhD	0.004	0.143	−0.005	0.145
Publication output	−0.002	0.149	−0.002	0.150
			−0.063	0.124
Use of thesis circles				
Model statistics				
Number of cases (n)		136		136
Adj. R^2		0.143		0.183
F		4.756		4.090
p		0.000		0.000

*Significance at 0.01 level
Standardized values are used for the supervision aspects scales

students were supervised on a one-to-one basis. The final grade seems to be unaffected by the use of thesis circles. Table 14.3 shows the different supervision aspects with respect to thesis duration.

Different supervision aspects and the supervisor characteristics are examined in relation to length of thesis process. The use of thesis circles was also examined for process duration. The expected positive effects on thesis duration are not apparent. The student appreciation of methodological and content-related supervision does not impact the duration. However, supervisor responsiveness does seem to reduce the thesis process length.

14.5 Conclusions and Implications

Regarding the quality of theses, a strong relation was found for student appreciation of supervision on methodological or process-oriented aspects, rather than on content-related aspects. For efficiency of the thesis process, supervisor responsiveness appears to be a factor of importance. In addition, it was found that publishing supervisors are more responsive to thesis students than their non-publishing col-

Table 14.3 Regression estimates of supervision aspects, supervisor characteristics and the use of thesis circles on thesis process length

	Model 1		Model 2	
	B	s.e.	B	s.e
Constant	20.334**	2.165	21.186**	2.818
Supervision aspects				
Methodological supervision	−1.440	1.749	−1.612	1.793
Content-related supervision	−0.629	1.750	−0.525	1.770
Supervision responsiveness	−2.942*	1.599	−2.881*	1.611
Supervision atmosphere	1.480	1.521	1.471	1.527
Supervisor characteristics				
PhD	−1.975	3.435	−2.172	3.473
Publication output	2.097	3.554	2.197	3.574
			−1.401	2.952
Use of thesis circles				
Model statistics				
Number of cases (n)		112		112
Adj. R^2		0.012		0.005
F		1.234		1.082
p		0.295		0.380

** Significance at 0.01 level, * significance at 0.1. level
Standardized values are used for the supervision aspects scales

leagues. No significant positive or negative effects were found for the use of thesis circles as to final grade or in facilitating the process duration. Thesis circles are sometimes perceived by supervisors or academic departments as a way to reduce supervision time and to increase efficiency. Based on analysis of the survey data no positive effect was observable. However, negative effects seem absent as well. Thesis circles may serve as an equalizer among differently qualified supervisory staff and/or differently performing students. According to Weber and Hertel (2007), the performance of weaker participants tends to improve with the use of work groups. The NVAO emphasizes the establishment of "communities of scholars", to stimulate the scholarly activities of both students and faculty. If the use of thesis circles is without detrimental effects, then the concept can be used to encourage the formation of such scholarly communities.

Based on the findings, a number of inferences can be made for supervisors, students and academic departments. For supervisors, it seems worthwhile to spruce up on the methodological side of thesis supervision, including statistics programs, to be able to coach students more easily. The concept of thesis circles can be embraced,

but it should not be seen as panacea: the use of thesis circles does not improve grades or duration of the thesis process.

Writing experience gained in focusing on research output can indirectly help the students. In seeking out supervisors, when possible, students can simply check a supervisor's publication record.

Content-related expertise, related to supervisors with a PhD qualification (see Table 14.1), can be very motivating for students. For departments, it seems worthwhile to provide supervisors with allotted research time, emphasize research output and encourage participation in methodological workshops. Matching thesis topic with expert supervisor may be worthwhile for motivational reasons.

14.6 Limitations

Causal relations are difficult to establish, since the student evaluations of the process were elicited after their thesis grade was given. Students who fail during the process do not fill out the survey form. Future research should include analysis of thesis drop-outs, a particularly worrisome category of students. These students can take up a disproportionate amount of supervision time, leading to disappointing results to all involved. Future research studies should include multi-item measurement for the different types of supervision as well. In addition, open-ended questions about the nature and evaluation of the supervision could generate useful insights. Also, simple demographic questions to further segment students would be useful.

A further limitation of the study is the focus on one type of thesis students, completing the master thesis as part of distance education degree in business. Particularly, the low adjusted R^2 for the duration models (Table 14.3) indicate that other factors have a major influence on thesis process length. Typically, adult distance learning students face different priorities regarding work and home life compared to young, full-time students. Comparing and contrasting different graduate studies and supervision styles, across different countries and cultures, seems a promising avenue for further research. Future studies could be aimed at obtaining evaluations from different stakeholders in thesis supervision, at various stages, in combination with university records.

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Chapter 15
Redesigning and Marketing a German Business Communication Course

Hans Verboven

15.1 The Decline of German as a Foreign Language (GFL)

15.1.1 The Belgian (Flemish) Situation: A Decline in Both Supply and Demand

In Flanders, the Dutch-speaking part of Belgium, French is taught in schools as the first and English as the second foreign language. German, the third foreign language, used to play a very important role in the educational system. Since 1970, however, its position has continuously deteriorated. In comprehensive schools and secondary schools with vocational subjects, the third foreign language was either dropped or the contact hours were reduced (Van Loon & Berger, 2000; Duhamel, 2001). The same accounts for the position of German at universities and institutes of higher education. Here the position of German as a third foreign language is also compromised by Spanish, a very successful new competitor. The position of German has not only been harmed by curricular changes. Poor popularity and a rather negative image can also be identified as an important factor for the decline of GFL. German language and culture seem less attractive than, for example, English or Spanish culture. Furthermore, German is generally thought to be a difficult language despite the fact that the Dutch-speaking Flemings can rely on a widely similar grammar and vocabulary with their sister-language German. Individual motivation among teenagers and students to study German is low. Young people prefer to go to Spain or Italy on holidays and want parties at the beach, instead of visiting medieval German towns, so tourism is also a non-issue (except maybe for popular Berlin). These image and popularity issues are taken seriously by instructors and many actions were taken to curb the trend (Verboven & Duhamel, 2004; Verboven, 2005).

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15.1.2 The European Situation

The diminishing interest in GFL is not a particularly Belgian phenomenon but rather a European trend. Eurobarometer 243 "Europeans and their Language" (2006) shows that English is the first foreign language in Europe spoken by 38% of respondents (Eurobarometer 243, pp. 4–9). German and French share the second place, both with 14% of respondents. But more importantly, when asked which two foreign languages apart from the mother tongue children *should* learn, 77% of the respondents answered English, followed by French (33%), German (28%) and Spanish (19%). When asked for the main reasons for learning a new language, personal motivations such as "holidays abroad" (35%) or "personal satisfaction" (27%) score slightly higher than the job-related motivations "to use at work" (32%) and "to get a better job" (23%).

In the Netherlands, German is under pressure at universities and in the entire secondary school system (Gille, 2002; Delhey, 2002). In France, the situation of GFL is also distressing. Although the French educational system offers in theory many opportunities for students interested in regional or foreign languages (choice between 12 first foreign languages and about 22 second foreign languages including the regional languages), in practice, students stick to English, Spanish, German and Italian (Legendre, 2003). English profits from its international image and is chosen by approximately 85% of all pupils as their first foreign language. German, which is chosen by 8% of pupils as a first foreign language, is continuously losing ground to English. German as a second foreign language was studied by 13.6% of pupils in 2001–2002 (27% in 1990–1991). Spanish is very popular as a second foreign language (69.1% in 2001–2002 compared to 52% in 1990–1991) (Legendre, 2003, p. 30). Legendre concludes that English is popular as a "useful language" and Spanish as an "easy language". German, on the other hand, is considered "difficult" and "elitist" and suffers from image problems. The attitude towards a language *is also determined by the perceived image of the nation. This is a handicap for German or Russian, countries that are erroneously perceived as not very culturally vibrant. But it is beyond doubt that the rise of Spanish is driven by the success of the <Latino hype> and <the Costa del Sol effect> (. . .)* (Legendre, 2003, pp. 31–32).

15.2 The Economic Importance of German

15.2.1 Belgian Point of View

National economies depend most on their immediate neighbours, in Belgium these being the Netherlands, Germany, Luxemburg, France and the United Kingdom. Therefore, knowledge of the neighbours' languages is crucial for the national economy. Recent studies have proven that the demand for German-speaking employees in Belgium is not met by the supply (Van Loon & Berger, 2000; Verboven, 2005). An analysis carried out in February and March 2004 (Verboven, 2005) of more than

4000 job offers aimed at people with master degrees revealed that on the Flemish job market only three languages were consistently required in job advertisements: French (46%), English (38%) and German (13%). Other foreign languages such as Chinese or Spanish, which are undoubtedly of major global economic importance, were only rarely asked for (< 1%). Whereas the demand for English and French is met by the supply, this is not the case for German.

The findings of a survey by the Association of Walloon Companies (Dembour & Wiertz, 2004) on the demand for foreign language skills in the French-speaking part of Belgium are also interesting. Twenty percent of all surveyed companies claimed they could not find a candidate with the required language skills for their recent job opportunities. Furthermore, this survey showed that the three most important and necessary foreign languages are (1) English, which 88% of companies would require of future staff; (2) Dutch (78%); and (3) surprisingly strongly, German (36%). Spanish and Italian ranked fourth and fifth with 15.7 and 15.2%, respectively. Other languages such as Chinese, Russian or Arabic play only a very marginal role. Forty percent of the companies organize some sort of language training.

One of the popular arguments often used against German is the cliché that every German speaks English and that the knowledge of this lingua franca would suffice for international business communication. Though these statements have not been tested empirically, they have an impact on the debate. It is true that English is often the lingua franca in German companies but knowledge of German remains a prerequisite for higher positions. With Legendre we note that *If language skills have become essential for all citizens in a globalized economy and a European area without borders, the diversification strategy of language profiles is equally crucial to take advantage of all the opportunities offered by the labour market: in fact, if one buys well in English, one sells much better in the client's language* (Legendre, 2003, p. 48).

15.2.2 Need for (Business) GFL in Europe

The ELAN report (Effects on the European Economy of Shortages of Foreign Language Skills in Enterprise – Moore, Tinsley, and Winslow, 2006) was ordered by the European Commission. It analyses the use of language skills by SMEs and the impact of the shortage of language skills on business performance. The report points out the importance of foreign languages for companies in Europe and on many occasions it stresses the importance of German. But even more important is the fact that the findings discard the idea that the knowledge of merely one language (i.e. English) suffices for successful trade. In order to avoid losing export contracts and to strengthen a company's position in national markets, competent employees with language skills are claimed to be indispensable.

In regard to export opportunities, the ELAN report shows that a significant amount of business is being lost to European enterprises as a result of lack of language skills. Across the sample of nearly 2000 businesses, 11% of respondents

had lost an actual or potential export contract as a direct result, according to the ELAN report. German figures prominently with 16% of opportunities lost because of lack of oral or written skills and ranks third after English (19%) and French (18%). (ELAN, 2006, p. 18) Other missed opportunities were due to poor knowledge of Italian (8%), Russian (3%) and Chinese (3%). Another way to measure the importance of a language derives from the projected demand of the companies. The ELAN report lists the top languages for which firms in the total sample have registered a need within the next 3 years. As expected, English is most often recorded, but only by 25.84% of the respondents. The large projected demand for German (17.8%) followed by French (13.2%) and Russian (11.7%) shows the importance of these countries (ELAN, 2006, p. 36). Spanish (6.55%) and Italian (4.65%) rank fifth and sixth. This future demand correlates with the languages in which firms have trained their staff over the last 3 years. English (25%) ranks first. followed by German (18%), French (15%) and Italian (8%). (ELAN, 2005, p. 35) Interestingly, both Russian and Spanish did not figure in the top ten (demand $< 3\%$).

15.3 Marketing and Redesigning a Course to Meet New Challenges and a Changed Environment: Best Practice

15.3.1 Are Students Customers?

In paragraph 2 we showed that the decline of GFL is in direct opposition to its importance for our economies. But why then are educational organizations ignoring this discrepancy? We will answer this question from our own experience. In recent years, curricular changes have caused a dramatic decrease in the number of students attending our courses of business German at the Faculty of Applied Economics at the University of Antwerp. The decrease started when the faculty board decided that Spanish should be offered as an alternative to German as the third obligatory foreign language (1999). As a result we lost more than half our students. In 2007, another reform reduced the status of third foreign language from compulsory to optional, and students were allowed to choose the two obligatory foreign languages. In theory, they could now study Spanish and German instead of French and English.

The first reform was partially embedded in an evolution to offer students more freedom in designing their individual curriculum and it was a response to other institutions which had already introduced popular Spanish instead of German. The second reform, the optional reduction of the weight of languages in the total curriculum, catered to the wishes of some students who had problems with these subjects. This reform was also applauded by the increasing number of Dutch students at our faculty whose knowledge of French is often poor in comparison to the Flemish students. Students can choose between 2 and 4 foreign languages (English, German, French and Spanish) but with a minimum of 18 and a maximum of 24 credits over the 3 years of their bachelor program (every course counts for 3 credits). For two languages they have to earn at least six credits in successive courses.

The Department of International Business Communication strongly opposed the last reform but the faculty board considered it to be an important factor in increasing student (customer) satisfaction and essential for its strategy to compete with other universities. We, the opponents of this reform, claimed, however, that these pragmatic decisions were caused by a misguided adoption of marketing concepts in non-marketing environments (Svensson & Wood, 2007). Students are not buying a degree, so they should not be treated as customers and surely not be allowed to influence programmes (Lomas, 2007).

Certainly, students will applaud more choice and freedom in designing their individual curriculum, but when this comes at the cost of certain "useful" but "unpopular" or "difficult" subjects which are dropped for more "fun" or "easy" ones that are possibly less relevant to their education, a university should reconsider its role in society. Furthermore, universities should think twice when they want to bestow on students the ability to judge which choices (courses) are best for them. It is our belief that the "customerization" of education (Love, 2008) fails to identify the real "customers" of state-funded education: the employers and society.

The curricular reforms had a dramatic effect on the number of students attending our courses and it created a competition with other (language) courses. This competition has to be taken seriously; in fact it is a real survival of the fittest since fewer students means fewer staff. But it would be wrong to blame the diminishing interest for our course only on the curricular changes. For over 30 years the course of business German had been an obligatory subject and, as often in monopoly situations, innovation and change had been poor. Course materials were seldom redesigned and student satisfaction was not very high.

The paradox is now that it was this controversial reform that we identified as an example of the undesirable "student-as-a-customer view" that caused us to adopt part of this view as well. In order to respond to the new circumstances, we had to start thinking about marketing our course. Using a SWOT analysis, we tried to figure out how the strengths and opportunities of our course could be better used and how some of the weaknesses and threats could be dealt with effectively. As a consequence, actions were taken in marketing the course (perception) and in redesigning the actual learning environment. In the following paragraphs we present some best practice which describes the two strategies.

15.3.2 SWOT Analysis

15.3.2.1 Strengths

The strong interdependence of the Belgian and German economies and the fact that German language skills offer a competitive advantage for jobseekers were identified as the major strength of our course. This corresponded with results of internal student evaluation questionnaires (2006/2007) which showed that our students choose German because they consider GFL very important for their professional career. About 90% of the students that answered this particular question claimed

they took the course because they considered German important for their career. About 30% of these students also added that they already knew some German, which would give them a higher chance of passing the course. The 10% that did not give economic motivation mentioned things like interest in German soccer, relatives in Germany, a German parent or a German girlfriend. Not one single student claimed he chose German because of personal interest in German literature, arts or philosophy. A successful marketing strategy would therefore have to focus on this pragmatic attitude of students of applied economics. Furthermore, we identified some major German multinationals in Flanders which were willing to support initiatives to promote the language and the course.

15.3.2.2 Weaknesses

The aforementioned internal student evaluation questionnaires also showed that our German courses were perceived as difficult and old-fashioned. Many students claimed they would greatly prefer more communicative skills instead of grammar and exercises. As instructors we were aware of the continuous tension between the lexico-grammatical and communicative approaches. The lexico-grammatical aspects of our course have to be dealt with before we can proceed to the real practical business communication, which many students primarily expected to acquire in the course. Unfortunately, lack of classroom hours often caused the communicative part to be reduced to a minimum.

15.3.2.3 Opportunities

Although we considered the second reform (2007), which reduced the number of obligatory foreign languages from three to two, as a threat (see below), it also provided us with an opportunity. Students can now choose their languages freely, so we can now compete with the other three foreign languages, whereas in the old system students had to choose between Spanish or German. Finally we started adapting a real strategy for using our learning management system (LMS) Blackboard®.

15.3.2.4 Threats

We feared negative consequences of the 2007 curricular reform (see above). We feared that students would (1) minimize the number of credits for business communication in a foreign language; (2) limit themselves to two foreign languages; (3) furthermore the worst-case scenario suggested that those two foreign languages would be English or French, of which Flemish students already have significant knowledge when they enter university and which are in the Belgian and global context of great importance (Fig. 15.1).

STRENGTHS	*WEAKNESSES*
-ECONOMIC IMPORTANCE	-IMAGE (DIFFICULT/OLD-FASHIONED)
-POSSIBLE PARTNERS AMONGST STAKEHOLDERS	-OUT-DATED COURSE MATERIAL
-MODERN TECHNOLOGICAL TEACHING FACILITIES	-FOCUS ON LEXICO-GRAMMATICAL ITEMS, NOT ON COMMUNICATION
	-LIMITED NUMBER OF CONTACT HOURS
OPPORTUNITIES	*THREATS*
-CURRICULAR CHANGES	-LIMITED POPULARITY
-LMS BLACKBOARD®	-OTHER LANGUAGES OFFERED
	-CURRICULAR CHANGES

Fig. 15.1 SWOT analysis of business German at the Faculty of Applied Economics, University of Antwerp

15.3.3 Actions

Guided by these findings, we tried to formulate pragmatic strategies to promote our course of business German and at the same reflected on how to improve the quality of our course and students' satisfaction.

15.3.3.1 Marketing the Course and Engaging Stakeholders to Add Value

We showed above that our main strength resides in the fact that German is considered an important factor for professional success. Therefore, we stress the competitive advantage of being able to speak German in all communication about our course. In collaboration with the German Embassy and seven important German companies in Belgium we developed a DIN A3 promotional poster which lists convincing facts about the economic relevance of Germany and its language. The back of the poster boasts a large map of Germany and Belgium and a long list of German companies in both Belgium and Germany. This poster was distributed at the start of the academic year 2007–2008 when the new reform was implemented. It was a success. Because of the success 20,000 copies were made and distributed in schools and institutes of higher education all over Belgium.

Furthermore, we established partnerships with German companies for brief internships (4 weeks) in both Belgium and Germany. Though less than 5% of the students can take part in this program, the effects on the general image of the course are positive.

Finally, we started organizing educational trips to Germany, including visits to the production sites of large companies combined with more informal leisure activities. These trips actually create the feeling of a learning community and generate much good-will.

15.3.3.2 Redesigning the Course

The focus of our course was mainly on cognitive aspects and we were spending most classroom hours on grammar and exercises. Bearing the findings of the ques-

tionnaires and the SWOT analysis in mind, we redesigned the program, the course materials and teaching method. In the process of this redesign we also considered how the use of our LMS could be optimized and extended to an off-campus "distant" learning environment. We also reconsidered the possibilities that are offered by our language labs. We identified three key issues: (1) the rationalization of the course content; (2) the modularization of our course and the creation of an off-campus learning environment; and (3) a renewed focus on oral business communication.

Rationalization of the course content: We should be teaching business German for mostly professional oral communication. Therefore we believe it is useless to focus on marginal phenomena or smaller exceptions. We noticed, however, that we were teaching very traditional and specialist grammar. Bearing in mind that we teach German to students of economics and not to students of languages we applied a pragmatic principle of "cost-efficient" studying. Our notion of "cost-efficient" grammar can be clarified by the following example: The entire gender system of German nouns is explained in three pages in our course book. Via a contrastive approach from the Flemish variant of Dutch, we explain the German gender system in such a way that Flemish students can deduce the gender of more than 90% of commonly used nouns by looking at the gender of the corresponding Dutch noun or by applying one of 15 rules of thumb. Another 40 commonly used exceptions to these rules have to be learned by heart. In this way, students can deduce the correct gender of more than 95% of frequently used German nouns. Average students should be able to master this grammar module in 2–4 hours. In order to learn all the exceptions to the rule one would have to invest many hours for just a marginal increase in the success rate.

We also noticed that the examples in our grammar exercises, many of them serving two or three decades, were only partially situated in an economic context. We modified these exercises and inserted economic vocabulary in order to make the learning process more efficient. The same applies for the example sentences in our vocabulary lists.

Modularization and an off-campus learning environment: In the past we had been placing announcements, assignments and relevant information on Blackboard® on occasion. We now place all information and material on Blackboard. During the past few years we had been converting some HotPotatoes® exercises to the Blackboard® exercise format. All this happened, however, without a proper framework or strategy for the implementation of an e-learning environment.

This changed with the division of our course content over 15 course modules. For each of the modules of the hard-copy course we created parallel "model" learning trajectories in the Blackboard® course. This parallel Blackboard® course offers a similar learning trajectory of the classroom course in 15 different modules. Students can check the grammar for each module in Dutch; they can consult extra or alternative representations of the grammar; and they can re-do exercises which were done in the classroom sessions. In addition, they can also choose from a wide variety of similar exercises in each module. For the more difficult and complex exercises, students can consult negative feedback for each individual question. All exercises can be attempted over and over until a satisfactory result is achieved. In total, about

150 different grammar exercises are at the disposal of the students. Furthermore vocabulary can be tested through question pools.

When students have worked their way through the modules, different exams from previous years (which consist typically of vocabulary exercises and a large multiple fill-in-the-blank text) are presented as the final test. Instant feedback is always provided and the minimum score to pass is calculated.

The modularization and the individual trajectories at least partially solved the problem of the different entry level of German of our freshmen. Students who find the pace too fast can take the course modules over and over and students who feel that the course is not challenging enough can do more difficult exercises.

Renewed focus on oral business communication: The outsourcing of a substantial number of the exercises to our off-campus learning environment has enabled us to spend more classroom time on practical communication. We developed new course material with dialogues in an economic setting, which students practise in pairs or for the more elaborate ones in groups of three to four. The newly developed course material focuses on real-life situations in German companies and exercises range from preparing meetings, giving a presentation to analysing financial products. This may seem obvious since we are teaching business German, but in the past there was simply not enough time to do these things. Especially in the second year where most of the time in the classroom is spent on these dialogues and exercises, the practical communication has proven to be one of the most appreciated aspects of our course. A lot of interaction between the students takes place and in the process of preparing presentations or discussions we sense that for the first time a sort of learning community emerges.

15.3.4 Evaluation

Studies on the influence of redesigning learning environments have shown that this process is no guarantee for an increase in student satisfaction nor should it be assumed that all students change learning habits. (Nijhuis, Segers, & Gijselaers, 2005) Other comparative studies have analysed in great detail how students in similar subjects respond to new learning environments compared with colleagues in more conventional learning environments (Gijbels, Van de Watering, Dochy, & Van den Bossche, 2006). At the time of our survey we were, however, merely interested in finding out if our image had improved as a result of the changes made to our course. The results were initially meant for our own private use. Because of the rather basic design of the questionnaire and the impossibility to compare results with those of a control group or with results from similar questionnaires in the past, we offer the results with some reservation. Though we acknowledge that there are limitations to the data generated from these student evaluations, we believe that the results at least point to conclusions about the perception of the "new" course in a certain direction.

Qualitative evaluation – students' satisfaction: Though some of the changes had been implemented in our teaching already before 2007, the combination of different

factors that we identity as our "new" course was finished only at the start of the academic year 2007/2008 when our marketing campaign started. At the end of the second term, in May 2008, a questionnaire was presented to all the students who attended the course business German 1, where most changes had been implemented. In total 202 students returned the questionnaire which consisted of about 20 questions. The answers were measured along a 5-point Likert scale (depending on the question, 1 being "too high"/"no effect"/"not efficient" and 5 being "too low"/"very high effect"/"very high efficiency"). The results of the five most interesting questions are presented in Fig. 15.2.

Although we had made some radical changes to the course, it seems that they were not at the expense of course difficulty, which seems to be at an acceptable level. The responses to question 2 showed that the Blackboard® course modules and the individual trajectories have had a positive effect on the progress of the students. We also asked students which components of our course program they considered the most efficient in terms of return on investment (study time vs. effect on personal progress). Both the Blackboard® trajectories and the grammar and exercises in class are valued highly in terms of efficiency. The results for the communication sessions in the language lab, where students have to play roles and exercises (self-prepared) dialogues, are less positive. Here there is need for improvement.

Quantitative evaluation: The students' satisfaction levels are high. Almost 70% of students of "business German 1" indicated that they would take the subsequent course "business German 2" for 3 credits. About 20% indicated that they would take the intensive variant of "business German 2 + 3" for 6 credits. This means that only about 10% of questioned students will stop taking German after their first

	too high (1)	(2)	(3)	(4)	too low (5)	Mean
1) What is your perception of the difficulty of the course?	11%	58%	32%	9%	0%	2.62
	no effect (1)	(2)	(3)	(4)	very high effect (5)	
2) Which effect did the parallel Blackboard® learning trajectory have on your progress?	8%	15%	23%	33%	21%	3.43
	not efficient (1)	(2)	(3)	(4)	very high efficiency (5)	
3) Efficiency of Blackboard® trajectories.	7%	13%	21%	32%	27%	3.59
4) Efficiency of grammar and exercises in class.	2%	11%	26%	45%	16%	3.63
5) Efficiency of communication sessions in language lab.	15%	39%	30%	13%	3%	2.79

Fig. 15.2 Student perceptions

year. Unfortunately our questionnaire does not reach those students that choose not to take German in their curriculum. In future, we will have to address this group as well.

In 2006/2007, about 200 students enrolled for business German 1. In 2007/2008, 240 students enrolled; an increase of 20% in absolute figures. However, we were not able to compare the evolution of students for our course with the evolution of the total number of students that had the opportunity to choose our course. Such an analysis would be more interesting and useful but the necessary data could not be provided by the university. In fact, we suspect that with a correct statistical analysis based on the correct parameters, we would note a much smaller increase or even stagnation or a small decrease in relative numbers of students attending our course. Still, given the dramatic curricular changes which resulted in more students limiting themselves to the two large languages English and French, we are very pleased with the status quo. Although we cannot prove our claim statistically, we believe that our efforts have been rewarded.

Correlation LMS usage and success at exam: Students who actively use our off-campus learning environment in the Blackboard® program generally believe that they benefit from it. They see it as an efficient way to improve their skills and sense that they make good progress. They could have a point here; there is a correlation between the result of the exam (axis EXAMEN) and the number of exercises (Axis BB-OEF) completed. The formula is $9.34 + 0.06$ for each exercise completed. So on the regression line a student who completes 100 exercises will score 15.34 out of 20 (Fig. 15.3).

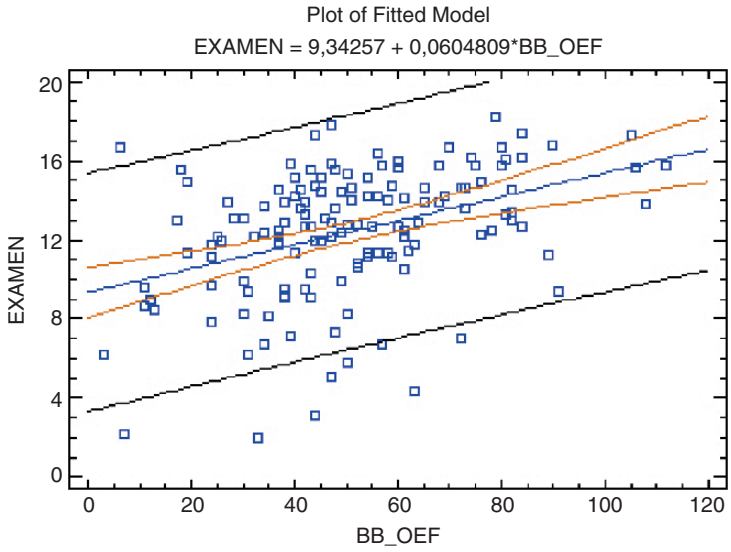

Fig. 15.3 Correlation between the usage of the LMS and success at the final exam 15

15.4 Conclusion and Discussion

Teachers of (business) German in various European countries are confronted with similar problems. Their courses are optional in most curricula and suffer from the poor image of the German language. We claimed that the curricular reforms at our faculty are the result of a student-as-a-customer view. We further stated that we found ourselves in a paradoxical situation in which we were forced to adopt some of the rhetoric of this student-as-a-customer view and strategies of economics in our thinking about education, in order to respond to this very theory.

It is our belief that the framework of the described strategies and actions can be generalized to other subjects. The prerequisite for a successful strategy to increase the number of students attending a course or to improve the quality of the course is a SWOT analysis of the subject from both the students' and the teachers' point of view. Every course will have strengths and opportunities and for almost every subject there are stakeholders with whom cooperation could be possible. After establishing these strengths and opportunities one should check whether the course is using these accurately and whether students are aware of these "assets".

We developed a marketing strategy for our course to communicate these "assets". But promotion is only one side of the coin. The quality of the course offered needs to meet the standards as well. We discovered that the comfortable position of being in a monopoly situation had some downsides with regard to innovation and the quality of our course. We addressed these issues and fully used the possibilities of the available LMS to create a situation of blended learning with classroom sessions for instruction and oral communication on the one hand and the off-campus learning environment for exercises and individual trajectories on the other. Despite being presented with reservations, the results of the student evaluation questionnaires and the number of students attending the course hinted at the success of this strategy.

Some of the key findings from this best practice can be of use for instructors planning to redesign their courses. Our general move towards more efficiency, more autonomy for the student and blended learning can be summarized in five statements: (1) A SWOT analysis is indispensable to establish a successful strategy; (2) marketing a course is a necessary evil; (3) identifying stakeholders and possible partners can be very helpful; (4) if available, the use of a LMS offers great possibilities to improve the efficiency of the course: many items can be moved to this new off-campus learning environment thus saving valuable classroom time; parallel modular learning trajectories can be constructed; more material can be provided to address the different needs of students; and finally (5) one needs to question the quality of the course offered and if necessary take action to improve it.

Sceptics will argue that in our reaction to the consequences of the "customerization" of the curriculum we have in fact adopted the very principles of the "student-as-a-customer view". Indeed, not all instructors would feel comfortable with a marketing strategy but this is a personal issue and we consider it be a "necessary evil". There are, however, more serious issues, the most important being the temptation to adapt the content of a course for optimal "customer satisfaction". This is a slippery slope towards lesser difficulty and quality. We are aware of these pitfalls

and acknowledge that the notion of "cost-efficient" grammar indeed places us on this slippery slope. Still we believe that the shift towards more oral communication and the creation of the parallel LMS courses compensate for the loss and that the final "customer" of our education, the employer, will be satisfied with the language skills of our students.

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Chapter 16
Getting Real? Using Reality TV as a Memorable Way of Introducing Semi-authentic Business Interaction to Students of Business Communication

Jonathan Clifton

16.1 Introduction

Arguably, students of business communication should be introduced as far as possible to authentic/real workplace interaction. This would ensure that students are presented with descriptions of workplace practices "as they are" rather than (often) idealized prescriptions of what they should be. However, for reasons of confidentiality, it is difficult to make authentic interaction from the "outside" business world accessible to students. Representations of authentic business interaction such as transcripts of meetings or texts of presentations are available on the web and, as Clifton (2005) has demonstrated, they can be adapted for use in the classroom, but otherwise bringing authentic workplace interaction into the classroom is an almost impossible task. First, this chapter argues that the semi-authentic interaction in "business-oriented" TV reality shows, such as *The Apprentice*, *The Dragon's Den*, and so on, provide a good enough and easily available substitute for authentic interaction. Second, the chapter argues that the entertainment value of such shows might also provide a memorable learning experience for the students. Third, this chapter exemplifies how students' viewing of an episode of *The Apprentice* can provide entertaining and memorable raw data that, despite being manipulated melodrama, is of pedagogic value.

16.1.1 Authentic and Semi-authentic Interaction

I use the term authentic here to refer to interaction that is naturally occurring (i.e., real business practitioners going about real everyday workplace activities). I use semi-authentic to refer to, inter alia, TV reality shows. On the one hand, some

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such TV series do show interaction in which contestants carry out business tasks but, on the other hand, since the interaction is designed and edited for a television audience, it no doubt differs in some ways from naturally occurring business interaction. Further research would have to be done to investigate the differences and similarities of these two types of interaction, but, following Kinnick and Parton (2005), I argue that despite the fact that the interaction in TV reality shows is not authentic business interaction, it is still of pedagogic interest.

Further, perhaps, the very fact that the interaction is semi-authentic and designed and repackaged for a television audience is not necessarily a weak point: this kind of show is about providing entertainment by watching characters displaying excessive hubris, which inevitably leads to a justly deserved fall. This very entertainment factor is something that we can perhaps positively harness in our teaching. As Ibbotson Groth (2001: 66) notes, in the current "entertainment age" (for the western world at least),

> We now teach and will continue to teach students for whom the words 'boring,' 'dull,' and 'tedious' and the feelings associated with them are never far away. Teachers are increasingly into the entertainment business, and our teaching materials must reflect this if student motivation and learning is not to suffer.

Thus, the very entertainment-oriented nature of such materials may provide a memorable learning experience so that the learning points that the instructor wishes to convey stick with the students – after all, the insights from other semi-authentic materials, such as literature, have a pedigree of use in learning situations (see, for example, Knights and Willmott 1999). The almost cartoon-like portrayals of the contestants in TV reality series make them memorable, lively, and entertaining and thus provide an exaggeration of behaviors that may provide learning points for our students. Indeed Kinnick and Parton (2005: 430), for example, note that the American Management Association found *The Apprentice* of pedagogic value and posted a weekly "Lessons learned from *The Apprentice*" column on its website.

16.2 Guided Viewing of the Apprentice

In what follows, I set out how viewing of *The Apprentice* can be used to introduce students of business communication to interaction that, whilst dramatized, is still close enough to real business interaction to be useful to them. In *The Apprentice*, which has been a hit TV series on both sides of the Atlantic, 12 aspiring businessmen and women compete for a six-figure salary and a job with a self-made business magnate (Sir Alan Sugar for the UK version and Donald Trump for the US version). Each week, the contestants are asked to perform business tasks and each week one of the contestants who failed to perform well is fired by the business guru and his deputies. More specifically, this chapter relates to the use of the "job interview" episode of *The Apprentice*, which the students were required to watch at home in conjunction with class work on interview techniques. Prior to the broadcast, the students were given a lesson on the dos and don'ts of job

interviews. Students were then required to watch the episode of *The Apprentice* in which the final four contestants are interviewed by Sir Alan Sugar and his team of three "headhunters." The students were simply required to make a list of the questions that were asked and to comment upon the candidates' performance in the job interviews.

The job interview episode of *The Apprentice*, thus, made up an integral part of a module entitled *Job Search*, which was designed for third-year undergraduate students at The University of Antwerp, in the Faculty of Applied Economics, where English for business and economics is a obligatory subject.

The *Job Search* module included the following components:

- Lesson one: Introduction to CV and cover letter writing.
  Writing assignment: the students had to write a CV and cover letter for a job specified by the instructors but based on a genuine job advertisement suitable for young graduates.
- Lesson two: Interview techniques (the dos and don'ts).
  Assignment: to prepare for a job interview based on the CVs and cover letters that were prepared in lesson one. View the interview episode from *The Apprentice* (at home) in preparation for discussion in the following lesson.
- Lesson three: Discussion of the episode of *The Apprentice* and the candidates' performance in the job interviews
- Lesson four: Simulation of a job interview (using student CVs and cover letters prepared in lesson one).

As previously noted, it is arguable that the entertainment-oriented format of the program equates with authentic business interaction. Yet, despite this, many of the questions asked reflected the lists of likely interview questions that are to be found in "how to" interview books. Consequently, through watching the video, the students were able to see how the candidates dealt with "typical" interview questions. Moreover, the entertainment-orientation meant that some of the interview extracts that were broadcast showed the candidates coming unstuck and thus provided a memorable illustration of what not to do during an interview. The task of viewing *The Apprentice* and following discussion, therefore, offered a rich series of learning points, just some of which are discussed in more detail below.

16.2.1 Learning Point (1): Research the Company

When preparing students to write their CV and cover letters, the course instructors stress the need to research the company and when discussing interviewing skills we point out that the candidates must be ready for the question: *what can you tell me about the company?* Failure to show some knowledge reveals a lack of interest in the job opportunity or, more widely, the field of work. In *The Apprentice* interview episode, two of the candidates were shown answering this question and

their complete inability to display some knowledge of Amstrad (Sugar's company) showed them up as ignorant buffoons, as the transcripts of this part of the broadcast illustrate:

Candidate one:

Interviewer: Do you know what. . . all the products that Amstrad sells, for example?
Candidate: No, I don't know all the products they sell, no.
Interviewer: So, as a salesman, you haven't gone in and checked out the target properly, have you?
Candidate: Not properly, no.
Interviewer: How do you feel about that?
Candidate: Well, clearly I'm picked up on it. So, clearly not good.

Candidate two:

Candidate: Yeah, it's computer based a lot of hardware and software.
Interviewer: What's computer based?
Candidate: Amstrad's side of the business.
Interviewer: Well, do you know Amstrad don't actually make computers now?
Candidate: They distribute them.
Interviewer: No, they don't.
Candidate: Right well, I'm not going to pretend to know something I don't.
Interviewer: It sounds to me you're just waffling your way through.
Candidate: No.
Interviewer: Well, you are.

Both responses to the question revealed an almost total lack of knowledge of the company and made the candidates look stupid. One interviewer, when giving his feedback to Sir Alan, damned the candidates on this point:

> Interviewer: (Speaking to Sir Alan) He did no research on understanding your organizations, the products you sell, the companies in it. And he sat there and basically said 'yeah, you're right, I didn't do that.' And I find that strange for someone who wants to be the apprentice, that they haven't really done their homework and really got it together.

16.2.2 Learning Point (2): Don't Lie on the CV

Another learning point that the team of instructors at Antwerp University drive home when discussing the CVs and cover letters is: don't lie. If, at the interview, it is revealed that candidates are greatly exaggerating their claims on the CV and cover letter, potential employers could see this as an undesirable character trait and not offer the job. In *The Apprentice*, most of the candidates have "exaggerated" their achievements and, as shown below, one of the candidates is caught lying on the CV, and he is made to look stupid:

Interviewer: I noticed that you weren't there very long were you?
Candidate: Gapwork?
Interviewer: Yeah.

Candidate: No.
Interviewer: Six months.
Candidate: No.
Interviewer: Okay, and you were there six months from April to October.
Candidate: No, I was there longer that that. I was there in Gapwork for eleven months.
Interviewer: Okay, so that's not quite true.
Candidate: No, I don't understand why that's there, to be honest.
Interviewer: Okay, was this not you? (points to CV) Did you not fill this in?
Candidate: My resume was put down very last minute. I didn't have to do a resume for my last couple of jobs and er. . ..
Interviewer: That wasn't my question. Was it you who did this?
Candidate: I did the resume, yeah.

Thus, in this particular extract, the audience has a display of the candidate squirming, as inconsistencies in his CV are made relevant. Moreover, the candidate is maneuvered into a position where he either has to admit that he is lying or, as the candidate does, he admits incompetence in putting his CV together. Consequently, the advice we give to our students, and which can be found in most job search guides, is thus made theatrically evident.

16.2.3 Learning Point (3): Body Language

When teaching the students how to do interviews, we stress the need for correct body language and dress. In *The Apprentice*, one of the candidates comes across as excessively aggressive: she fails to knock before entering the room, she sits down before being invited and she places her elbows on the interviewer's desk and leans forward. The very exaggerated nature of this behavior makes good entertainment and is therefore memorable as the interviewer rebukes her for this transgression of acceptable interview behavior. For example, when the candidate comes in and sits down without being asked the interviewer says sarcastically "*have a seat*" as the candidate is already sitting down. Then the interviewer states explicitly, "when you came in here why didn't you knock because I found that quite rude."

He then draws attention to her "aggressive" character and, in an almost comic exchange, he instructs the over-excited and "aggressive" candidate to relax:

Interviewer: You seem very tense, hyper.
Candidate: I am? (said with surprise)
Interviewer: Relax.
Candidate: I am relaxed (insistent voice) but don't forget I've got to come across to you . . .
Interviewer: Cool, cool, be calm.
Candidate: I've got to come across to you and justify my points. Okay, so I'm upfront without a doubt. This is the way I am.
Interviewer: Your making me want to sit back and (addressing the candidate) sit back relax, relax.
Candidate: You think I'm aggressive? (spoken aggressively)
Interviewer: Not many. (smiling ironically)

16.2.4 Learning Point (4): Prepare for the Question "Why Should I Offer You This Job?"

When preparing the CV and cover letter, we advise students to think about why they are a suitable candidate and to assess their strengths and weaknesses in relation to the job. They are also told that a question such as *why should we employ you?* is almost sure to come up in an interview and we advise them that this question is an opportunity to display that they have the necessary skills and desire to do the job. Sure enough, at the end of the episode, Sir Alan asks, *why should I employ you?* Not all the performance of the candidates provides memorable data of the don'ts of interview techniques and the question *why should I employ you?* is answered quiet well: all the candidates give a short, but competent, "sales pitch" of their strengths. As Bermont (2004: 146) notes,

> This question separates the contenders from the pretenders. Here, a boss wants someone enthusiastic and who is a go-getter. If candidates answer this question without conviction, then most likely they will not perform well on the job. However, if they are energetic and give a well-thought-out response to the question, they are well positioned to succeed.

In this case, as exemplified in the transcript below, the candidate answers the question well since she displays evidence that she can do the job and that she is willing to do the job. Consequently, the students are provided with a positive example of how to deal with this question:

> Candidate: I've demonstrated all the skills that you're looking for. I've shown commitment to the role. I've given 100% on every single task. There is nothing that I wouldn't do to come and work for you. If you're looking for somebody to come onboard who has got a fantastic array of skills but can increase productivity and basically, hopefully, take your business up to the next level, I'm that person.

16.3 Evaluation and Conclusion

Further research would no doubt be needed to ascertain to what degree the interaction in *The Apprentice* is similar to naturally occurring business interaction. However, easy accessibility makes the use of some TV reality shows the next best thing to using recordings of authentic data. Further, the interaction of the candidates shown in the program is usable because it bears a close enough relation to the learning points discussed in the course work and many of the "how to" books and websites on interview techniques. Furthermore, the editing techniques that create the show's entertainment value ensure that the consequences of poor interview techniques are dramatized and thus our students are presented with a vivid and memorable lesson, the learning points of which, we hope, will stick in their minds and will be useful in their own job search.

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