

An Action Research into International Masters Program in Practicing Management (IMPM): Suggesting Refraction to Complement Reflection for Management Learning in the Global Knowledge Economy

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Abstract

International Masters Program in Practicing Management (IMPM) is a collaborative effort by major business schools and corporations around the world, balancing practical and academic issues within pedagogy of "experienced reflection". This action research into the IMPM aims to explain the IMPM and its importance for the global knowledge economy, as well as identify and improve the current limitations of the program. As a result, we hope to provide specific suggestions for the IMPM practice and general guidelines for business education. Our suggestions are based upon a framework of "refraction" that follows a methodology of action research and pluralistic knowledge science epistemology, a critique of management learning, and a literature review on (critical) reflection, as well as our findings about the IMPM practice. Also, critically reviewing Mintzberg and other authors' ideas on management learning and IMPM specifically supports our discussion in this paper.

Keywords: Business education, cross-cultural learning and knowledge management, action research, pluralistic epistemology and knowledge science.

JEL Classification Codes: D83, I21, M12, M53.

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1. Introduction

As a cross-cultural management education program, International Masters Program in Practicing Management (IMPM) is a collaborative effort by more than five major business schools and more than ten major corporations around the world. Developed by such a “worldly collaboration” of universities and companies, it strikes a good balance between practical and academic matters. “Experienced reflection” is the pedagogy that enables this balance. These aspects emphasize a blending of cross-cultural management and knowledge management for management learning in today’s global knowledge economy.¹

This action research studied the IMPM in order to understand better how IMPM works as a significant business education program in the global knowledge economy. As a valuable research result, we have hoped to identify the current limitations and problems in the IMPM, and provide our own suggestions to improve the program. As a written account of this study, this paper initially provides background information about the research methodology and critique of management learning. Specifically, Mintzberg’s ideas about management education and development are discussed together with their critiques. A more detailed literature review on reflection and critical reflection for management learning with recent critics and advancements is also provided. Then, the IMPM is discussed more deeply, identifying its limitations besides its innovations. At the end, the concept of “refraction” is introduced to address these limitations, and provide some suggestions for program improvements.

2. Research Methodology

With respect to the “pluralist epistemology” (Spender 1998), “epistemic types, aspects and levels in knowledge management” (Umemoto 2004) and “knowledge(s) science(s)” (Umemoto 2006),² a pluralistic knowledge science epistemology fits well with the cross-cultural knowledge management perspective in this action research into management learning.

Such pluralistic epistemology then leads to “designing and conducting mindful inquiries in social research,”³ where it is important to understand well the definitions of “case” and “observation.” (Collier, Brady & Seawright, 2004: 250-251). Such inquiry then can complement a more common sense of observation that can be used to acquire information for intelligible inquiries, avoiding basic interpretation mistakes. However, an important issue that goes against common sense is also (Collier, Brady & Seawright, 2004: 252) that increasing the number of observation may not always be a good idea, using a discussion of “causal-process observations.” (Brady, Collier & Seawright 2004: 12)

Build upon this discussion of causal-process observations for social inquiry, this study is an action research for improving practice in the case of IMPM and advancing theory in *knowledge science* and management.⁴ In accordance with what McNiff, Lomax and Whitehead (1996) suggest, pursuing my master's management learning and doctor's knowledge science studies on IMPM, I have been a part of the academic context at Lancaster and JAIST, both of whose faculty members contribute significantly to the program. At Lancaster, I was one of the two student-consultants for the module director of the "reflective mindset." At JAIST, I have been an assistant for the "collaborative mindset". As a result of such involvement, suggestions for the improvement of the program have also been made (Carr & Kemmis 1986).

In this action research the following methods of data collection have been used: qualitative unstructured, open-ended, informal interviews, as well as more structured but still open-ended e-mail interviews; document analyses; field diaries and notes; and participant observations. This data has been triangulated by gathering accounts from the different points of view of the faculty participants, the practitioner participants, and the participant researcher for validity (Junkers 1960; Easterby-smith, Thorpe & Lowe 2002; Koshy 2005).⁵ Meanwhile, the literature review has shed light on the analysis, leading to coming up with a few explanatory factors for reliability. Besides, this action research has also benefited from a case study approach (Yin 1994), especially in the preliminary stages of the study.⁶ Table 1 provides detailed information about the stages of the study.

As one final note about the research methodology, the above-mentioned pluralistic knowledge science epistemology has allowed us to study the *knowledges* of other sciences and studies such as material sciences and mythologies. As a result, for instance, in this study it has become possible to use analogies that are based upon material science metaphors as well as mythological stories for developing a social science model as a theoretical implication of this action research.

In the two sections following this discussion of research methodology, critiques of management learning will be provided, focusing on the recent literature that is representative of previous works. Here, management learning will be used as an expression that captures management practice, as well as training, development, and education, although our emphasis will be on the last. Moreover, as a most recent, representative and influential figure in management learning, Mintzberg's opinions and critiques, as well as critiques on his ideas, will be the focus of attention.

Table 1: Chronological List of the Action Research Interactions

Chronological List of the Action Research Interactions	
At Lancaster, U.K.	
2001 Summer:	master's thesis on reflection mindset for management learning, and student-consultancy work for reflective mindset module directorship
Autumn 2001:	presentation of findings
Winter 2001:	review of literature on reflection for faculty
In U.K., Turkey and Japan	
2002- 2003	benefiting from the Lancaster and JAIST affiliations with IMPM, arranging to pursue doctoral degree work on management learning in knowledge science
At JAIST	
2004:	analysis of IMPM as one of the existing knowledge management education programs, as well as work on cross-cultural knowledge management and communities of practice
Summer 2005:	Collaborative Mindset Module, IMPM Cycle 9. Participant observations, interviews with participants. (June, 2005 at JAIST, and in Kanazawa and Tokyo)
Autumn 2005-Spring 2006:	e-mail communications with not only academic participants with the occasion of writing a book chapter on graduate management education and IMPM (Medeni 2006a) but also student participants
Summer 2006:	Collaborative Mindset Module, IMPM Cycle 10. Participant observations, interviews with participants and alumni. Visit to the Contemporary Art Museum (June, 2006 at JAIST, and in Kanazawa and Tokyo)
Autumn 2006:	Analyses of field notes and diaries, and private and public documents, writing-up doctoral dissertation
Winter 2006:	Presentation of findings

3. A Critique of Management Learning

Recent critiques of traditional management education programs, specifically MBAs (Master of Business Administration), by Pfeffer and Fong (2002) and Mintzberg (2004) have emphasized the overly analytic emphasis of instruction, the stifling of creativity, innovation and integration within functional teaching and research silos,

the disconnect between theory and practice, between knowing and doing, and between rigor and relevance (Wankel & DeFillippi 2006). Similarly, a recent survey conducted by Koys & Gundry (2002) highlights, as the most important competence needed by the graduates of management education, critical and creative thinking, which is followed by the use of information technology, communication, teamwork & leadership, decision-making, ethics and social awareness, technical and analytical skills, and global awareness – all of which underscore the importance of inter-cultural knowledge creation in the global knowledge economy, in shorter terms, knowledge management. However, while it is expected that “negotiating and solving conflicts,” as well as “handling politics and power relations” (Saito 2007) are important for inter-cultural knowledge creation, according to a most recent survey among academicians and practitioners, “very unexpectedly” these “conflict- and power-related capabilities” are not considered among the “knowledge management competences.” (ibid)

In short, debate continues as to the question of whether a new vision of management learning is needed (Mintzberg 2004, Wankel & DeFillippi 2006). Areas of debate include “whether it is possible to teach management, how it can be taught, to whom it should be taught, and what should be taught” (Shepherd 2005: 1089):

- Specifically, is leadership too tacit to be taught?
- Can a typical MBA curriculum teach cognitive and emotional intelligence competencies?
- How can critical thinking and reflection be introduced?
- Can managers without experience really benefit from management education?
- Or can this type of student add to the whole classroom learning experience by creatively challenging conventions in the same way that dot.com entrepreneurs have invented successful new business models in established industries?
- How much do we know about the effectiveness of management education, and what new challenges do the innovation economy, the globalization of knowledge work, and heightened interest in talent management – all features of 21st century – bring to the future of management education and learning?

Among all these important questions, in accordance with the research concerns provided in the Introduction, the attention of this discussion is generally addressing the new challenges that the knowledge economy⁷ and society bring to the future of

management and its learning. Specifically, the focus is incorporating inter-cultural thinking, as well as critical and reflective thinking into management learning and knowledge management so that these challenges can be addressed. Inevitably, however, concerns like whether it is possible to teach management, and how/to whom/what can/should be taught stay at the background. These concerns will be pointed out next by introducing Mintzberg's ideas, as a crucial representative of critiques on academic and practical management knowledge.

3.1 Mintzberg's Ideas about Management Practice and Education, with their Critique

Management knowledge and practice are influenced by and influence management schools and consultancy firms, nevertheless still they remain deeply embedded in the practice of everyday living (Burgoyne & Reynolds 1997, Magretta 2002, Mintzberg 2004). "Management is complex and based on practice... Knowledge in management is basically local, and not normally generalisable" (Griseri, 2002: 1-2).

Mintzberg (2004) particularly discusses that managing is not about one's own success but about fostering success in others, basing his argument on the ideas of previous works such as the work of Livingston (1971: 84).⁸ According to Mintzberg (2004: 32), disciplines like psychology, sociology, economics, mathematics, anthropology, and history, among others, can be considered to be the roots of the management. "Research as well as the very notion of business and organization⁹ comprise the trunk, feeding out to the business functions" such as finance, strategy, information technology, marketing, accounting, organizational behavior, management science, and operations management, or management of technology "as branches;" although "now each of these branches has taken root on its own and stands apart from the others."

As a summarizing argument, Mintzberg (2004: 92-93) explains management as a practice that combines art, craft, and science. Accordingly, the styles at each of the poles of a triangle of art, craft and science would be understood in negative terms. Each of the combinations of two leaving out the third also would have negative connotations. Effective managing tends to happen where the three approaches coexist. (Minztberg 2004: 92-93)

Furthermore, Mintzberg (2004) argues that the education programs in the business schools have ended up teaching about Business, not Administration, broadening their students' knowledge about business, but narrowing their students' perceptions of management. While effective management requires the balanced combination of art, craft and science, management education, specifically Master of Business Administration education, focuses on only one, the science (analysis) aspect. The education of "calculating manager" emphasizes "teaching the functions

of business and the analysis of decision making while trying to give the impression that they are developing managers – for business and everything else" (Mintzberg 2004: 66).¹⁰

Finally, Mintzberg (2004: 243-275) also has these specific propositions for the development of management education, based on which Mintzberg and his colleagues have developed the pedagogy of "experienced reflection," and established the IMPM program:

1. Management education should be restricted to practicing managers.
2. The classroom should leverage the managers' experience in their education
3. Insightful theories help managers make sense of their experience
4. Thoughtful reflection on experience in the light of conceptual ideas is the key to managerial learning
5. "Sharing" their competencies raises the managers' consciousness about their practice
6. Beyond reflection in the classroom comes learning from impact on the organization
7. All of the above should be blended into a process of "experienced reflection"
8. The curriculum, the architecture, and the faculty should accordingly be shifted from controlled designing to flexible facilitating

In the mean time, authors like Chia (2005a) are mostly favourable of Mintzberg's ideas and interpretations. Pfeffer (2005a) also appreciates Mintzberg's opinions, although he challenges if he goes far enough by placing the MBA within a broader, less idealistic context, to which responds Chia (2005b) that education should be idealistic. Besides, Wensley (2005) gives credit the innovation apparent in European institutions including IMPM, although he not only comments that Mintzberg's (2004) book has little new to say compared to previous offerings, but also puts the MBA within a broader context, one of a research establishment subject to institutional pressures. Furthermore, Donaldson (2005) is the most critical of Minztberg's (2004) ideas in his most recent book, challenging the objectivity of the book and the general lack of research into management education. The importance of experience, the tacit nature of managerial knowledge, the roles of traditional lecturing and grading, the worth of prescription, the commitment to science and research as a foundation for management education are examined as a part of his challenges, and are also then debated by Pfeffer (2005b), another influential figure for management learning.

Leaving aside these favourable and unfavourable critiques and comments about his ideas, Mintzberg's propositions are given value for the purposes of this research, in accordance with the above concerns about addressing the new challenges that the global knowledge economy brings to management, by specifically incorporating inter-cultural knowledge creation into management learning as well as into knowledge management. As a part of this incorporation, critical thinking and reflection, which are crucial for *cross-epistemic interaction* as well as addressing some of these critiques, will be discussed in the next two sections.

3.2 Reflection and Critical Reflection for Management Learning

To begin with, Schön's (1983) study of reflective practitioners highlights that the gap between convergent thinking and divergent practice can be bridged by reflection. Through reflection, the practitioner not only can bring to the surface and criticize the tacit understandings that have developed around the repetitive experiences of a specialized practice, but also can make sense of the new situations of uncertainty, or uniqueness that one can experience. As Mc Alpine & Weston (2002: 69) point out, "transforming experiential and tacit knowledge into principled explicit knowledge... requires intentional reflection..." Reflection, making thoughtful and productive use of otherwise uncoded (tacit) experience (Usher 1985), requires linking existing knowledge to an analysis of the relationship between current experience and future action. Because of this, managers are also encouraged to become reflective practitioners where management education and development has an important role to play (Liu 2001).¹¹

Moon (1999) contributes to the discussion with the argument that the application of reflection to improve learning and practice would not be served well by abstracting a theoretical item that loses its common meaning for practitioners. With regard to this, common-sense understanding of reflection can be the "examination of the justification for one's beliefs, primarily to guide action and to reassess the efficacy of the strategizing procedures used in problem solving (Mezirow 1990)." This common-sense understanding of the academic understanding and use of reflection is also likely to involve a conscious and stated purpose, with an outcome specified in terms of learning, action and clarification. Moreover, the process and outcome of reflective work are most likely to be in a represented form, to be seen by others and to be assessed. Nevertheless, it can also be observed that most of the academic literature focuses on the outcomes of the reflection process, rather than the mechanics of the process itself. From evidence of literature, it can be suggested that the most obviously reflective learning is when we generate apparently new and meaningful ideas (knowledge and understandings) that are not immediately related to specific existing

knowledge, although clearly they are based on what we know Moon (1999, 2004).¹²

Furthermore, based on the three knowledge ‘interests’ (technical, practical and emancipatory) proposed by Habermas (1972), Kemmis (1985) distinguishes three forms of reflection (technical, practical and critical); emphasizing that although reflection is a mental process its aim should be social action. These modes of reflection are applied to the design developments of educational programs for practitioners, for instance as instrumental, consensual and critical (Burgoyne & Reynolds 1997, Reynolds 1998). Reynolds (1998) develops a critical management education pedagogy, combining these developments that have impact on both the content and the methods of education programs, and concluding that critical reflection is qualitatively different from the concept of reflection, as it deals with analysis of power and control within a collective setting in addition to the individual examination of the taken-for-granteds within which the task or problem is situated (Liu 2001).

As Liu & Medeni (2006) suggest, since managing exerts significant impact of social relationships on wider society, and on the environment, a critical focus to question hidden assumptions or power relations, and in general a questioning attitude towards existing knowledge should not be avoided. This becomes especially true for cross-cultural interactions for learning and knowledge creation. However, since management is a field of chaos practice and managers play a crucial role in the power relations within their organizations, whether this approach can be really applicable for management education and development still needs to be questioned more (Liu & Medeni 2006).

3.3 Recent Critics and Advancements in the Literature of (Critical) Reflection

(Critical) reflection has also not yet been freed from criticism, as Taylor (2006) points out. First of all, as Moon (1999, 2004) stresses, it is a term that is too crowded and vague. Burton (2000) adds to this that there is a lack of research evidence to support the mandate to reflect, while Johns (1999) reminds us of the existence of cultural barriers to empowerment through reflection. Moreover, for Pryce (2002) reflection fails to address the postmodern cultural contexts.

Recent advancements in the literature try to address some of these criticisms about critical thinking and reflection. For instance, collective and organized reflection is emphasized (Reynolds & Vince 2004, Evans et al 2006), meanwhile story-telling/writing for reflection is suggested (Moon 2004, McDrury & Alterio 2003).¹³ Besides, even if limited and insufficient, emergence of refraction as a

complementing phenomenon can be found in the literature (Amar 2002, Pryce 2002).¹⁴

As Gould (2004:4) argues the “recognition that learning is experiential and organizationally embedded potentially connects the concept of the learning organization with the process of reflective practice.” Reynolds and Vince (2004) also discuss that “reflection is understood better as a socially situated, relational, political and collective process” rather than as an individual, personally private, introspective process. Nicolini, Sher, Childerstone and Gorli (2004) also refer to organizational structures that can connect and reflect, as deliberate spaces where reflective practices can be linked to power conditions that can support the implementation of the results of the reflection. Finally, Evans et al (2006) focus on the social and collective aspects of reflection in the context of work; in other words, people reflecting together in the workplace.¹⁵

Finally, although there is no clear or common comprehension of what it would be, refraction can be identified as an emerging concept to complement reflection. Kayes and Kayes (2003) identifies this emergence in management learning without specifically naming it, but calling it “management education gone awry, ‘through the looking glass’”: Conceptualizing management development as a series of concurrent reflective conversations, they illustrate the developmental change process through the experiences of Lewis Carroll’s character in the books, “Through the Looking Glass” and “Alice and Her Adventures in Wonderland”. The authors further the distinction between personal and social knowledge and suggest development and learning are not a direct reflection of individual self but rather a process of looking “awry” at individual experience. With its implications for various pedagogies, this suggestion of looking awry at experience through the looking glass, if nothing else, brings up and emphasizes a process of refraction besides reflection, without naming it.

Then, it is possible to trace the concept of refraction and the use of the relevant terms within the existing literature, even if there can be found no satisfying clarity, consensus or comprehension about the meaning of the underlying concepts or the usage of the related terms. For instance, according to Amar (2002:11), as a creativity skill, refractivity is essential to give new understanding to “physical and non-physical variables,” and “to find creative encounters to interact with them.”¹⁶ Amar (2002:12) also discusses “skill to manipulate time and space” of the physical world.¹⁷ Besides, Drucker and Maciariello (2004) discuss the temporal and spatial in-between-ness that would provide suitable conditions for refractive skills, especially for those that can assume a role of *bystander*.

They are on the stage but are not part of the action. They are not even audience. The fortunes of the play and every action in it depend on the audience, whereas the reaction of the bystander has

no effect except on himself. But standing in the wings—much like the fireman in the theater—the bystander sees things neither actor nor audience notices. Above all, he sees differently from the way actors or audiences see. Bystanders reflect, and reflection is a prism rather than a mirror; it refracts. (Drucker & Maciariello 2004: 48)

Furthermore, refraction is also discussed as a cross-cultural communication concept by Uno (1999). As he asserts, (trans-cultural) refraction is defined as a form of adaptation within the objective assessment process for the adoption of innovations, to build upon the concept of inter-cultural adaptation.¹⁸

Amar (2002) concludes with proposing the skill to refract, or manipulate time or space for helping to create “a host of scenarios in new light that have never been previously understood,” acknowledging refraction and related skills for learning, knowledge, and management requires further elaboration and discussion. While we hope our work contributes to such elaboration, our attention now turns to the IMPM, as discussed in the following sections.

4. What is IMPM? Cross-Cultural Management Education

International Masters Program in Practicing Management, “IMPM” as called, is a collaborative effort by more than five major business schools and more than ten major corporations around the world. “Designed to be the ‘Next Generation’ Masters Program, IMPM is a degree program that focuses directly on the development of managers in their own contexts. IMPM is therefore deeper than conventional management development programs and more applied than traditional degree programs.”¹⁹

Developed by such a “worldly” (Mintzberg 2004) collaboration of universities and companies, IMPM strikes a good balance between practical and academic matters. “Experienced reflection is the pedagogy that enables this balance and bridge between the practice and the academia,” as Mintzberg asserts.

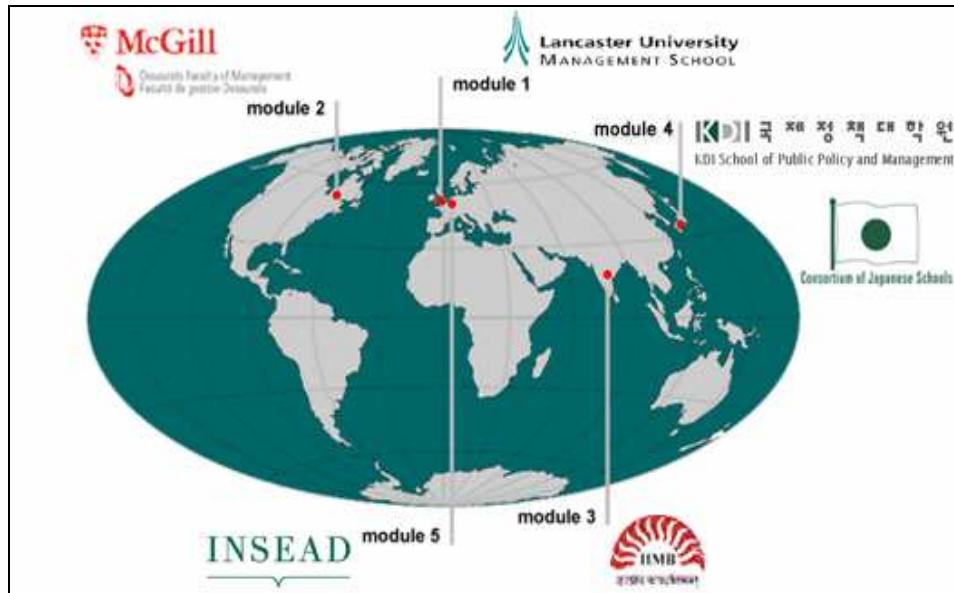


Figure 1: International Masters Program in Practicing Management (IMPM)

Source: IMPM, <http://www.impm.org/overview.htm> last access 22.Nov.2006.

Within this “worldly collaboration” and “experienced reflection” approach of IMPM, management education is structured around managerial mindsets (namely Reflective, Analytic, Worldy, Collaborative, and Action). While the managerial mindset of reflection is learned in Lancaster University Management School, that of collaboration is learned in the partnership of Korean and Japanese Schools.

The development of this state-of-the-art, leading-edge management education program “masks the tremendous debate, and the many people who animated it” during its development process. This was a program that sought from the outset to construct management education and development with the realities of managerial work at its core. Constant re-examination of these realities in cultures around the world extended the ‘R&D’ phase well into the delivery of the program itself.²⁰

For its designers, the program is still characterized by this inventive spirit of constant reflection and modification, even in its ninth iteration by the summer of 2004; nonetheless they are very clear about the core aspects, the key concepts and practices, of the program:

- 1) The focus on the current practice of managing in real-life contexts;
- 2) The importance of reflection on experience and on concepts;
- 3) The maintenance of a pluralistic learning community;
- 4) And the impact on organizational life and performance.²¹

All these issues, we believe, emphasize a blending of cross-cultural management and knowledge management²² for management learning. This blending, in the words of the program designers, incorporates an important matter that business schools have forgotten for more than a century, while they have been trying to find the ideal educational formula for the ideal manager: Management and “managers are products of a perpetually imperfect (but not unhealthy) world ...in which the search for perfection is just that: a journey towards the mythical final harmony,”²³ which, as “the (unattainable) end’ is not as important as the journey itself.” However, IMPM “tells the story of an alternative journey.”

a project whose aim is precisely to engage management education with the creative ‘mess’ of life in organizations around the world. The goal was to create a Masters program which would build back bridges between academic education and the multiple, complicated and imperfect worlds of management.²⁴

In that sense, IMPM is “a turning away from a search for an illusive final state, to a search for the daily ‘dis-ordered’ realities of managerial practices,” although, “it is crucial to see it against the background of the dominant trends in business schools” in order to comprehend the “terms of reference for this move.”²⁵ This IMPM movement can be compared with that of the MBA, which “was, and continues to be, ‘all things to all people’,”²⁶ which, “unsurprisingly...has never been achievable.”²⁷

To the extent that ‘the world’ is in fact a *plural* (diverse) cultural reality there can obviously be no single, universal model of ‘best practice’ in business organizations. There can be learning and connectedness across the world, but these are open processes which cannot be locked into ‘mean and lean’ models aiming to reduce the complexity which is the very core of life.²⁸

Thus, in summary, IMPM is designed and delivered to address this creative “complex mess” of “diverse cultural reality” for “learning and connectedness across the world,” by “an alternative journey” of “a search for the daily ‘dis-ordered realities of managerial practices.’” In accordance with its provision of multiple searches into diverse cultural reality, this alternative journey is in contrast with the

predominant provision of single search into single cultural reality in management learning.

For the part that our work contributes to this journey, this research will explain how these multiple, cross-cultural²⁹ searches within one single program work. This explanation itself then will contribute to a blend of cross-cultural knowledge management that addresses not only the myriad aspects of culture and knowledge, but also their interrelations for management learning.

4.1 “Educating Managers on the Edges”

Near the end of his discussion of management education and IMPM, Mintzberg (2004:372-376) uses three metaphors, “borders, tightropes, and ridges” to explain the essential characteristics of the IMPM innovation. We also would like to add “jigsaw puzzle” to these metaphors. All these are related to exciting but difficult “edges, where life is richer and more varied, more conducive to innovation, but also subject to tension.” This is in accordance with the feedback of one participant who has written that the IMPM should be kept “as a work in progress . . . constantly shifting . . . to remain at the edge,” or the joke of another participant who has linked the field visit to an SME specialized in high-tech cutting machinery with the importance of working at the “cutting-edge!”

First of all, the IMPM is an experience of educating beyond borders in management learning, which divide, keep things apart, for better and for worse.³⁰ Management education must respect the variations in companies, industries, nations and people, which require being “far more eclectic, flexible, and customized than it now is.” Moreover, “however collaboratively we work across them, we also need some borders in management learning.” (Mintzberg 2004:374). This issue of borders can then be explained with the following metaphors below:

The metaphor of a jigsaw puzzle highlights the significance of the borders and boundaries for institutions. In institutional entities, each sub-entity and / or connection can be seen as an individual piece of a jigsaw puzzle. These pieces conjoin to construct one whole structure or pattern. With regard to this; “it’s not the subject of the picture, or the painter’s technique, which makes a puzzle more or less difficult, but the greater or lesser subtlety of the way it has been cut; and an arbitrary cutting pattern will necessarily produce an arbitrary degree of difficulty” comments George Perec in his infamous book, "Life, A User's Manual". The cutting pattern, the boundaries among the individual pieces, then defines the meaning of not only the pieces but also the whole frame that consists of these pieces. Comprehending the boundaries among the individual pieces is important, especially, for understanding the relationships and interactions across boundaries. In fact, this comprehension of boundaries is especially necessary for identifying,

distinguishing, and making sense of the individual pieces, which constitute the bigger picture.

The comprehension of the borders and boundaries, however, is not an easy task to do. Inside an organization or institution, boundaries and borders are the odd, unsafe places, away from the comforting center. These places are where extremes are experienced or can be experimented on, rather than where norms are practiced. Furthermore, boundaries are not always easy-to-perceive, and perceiving the limits they define may require risky experimenting, forcing or pushing from inside or outside.³¹ Mintzberg (2004) also stresses the point that there are often tensions along borders, like tightropes. As Mintzberg argues, management learning is necessarily "shaky, suspended in space," and this is because of what is right with it, not wrong. "The real problems of managing are up here, amid the ambiguity, complexity, and nuance."³²

As Mintzberg concludes (2004), stretching out all the tensions, one can appreciate the set of precarious tightropes on which the participants and faculty of such educational programs have to walk. However "these are not just the tensions of education; most of them come from the everyday life of managing. Thus they have to appear in any program that is truly managerial." Besides, as one participant has pointed out, "only when a tightrope is tense can you advance along it, to make progress." So these tightropes have to be walked, not avoided, which may require a different perspective to see them.

Finally, Mintzberg (2004: 375-376) considers the metaphor of a ridge as both border and tightrope. ("It is a border between the terrain on either side (often, as such, a national border). It can also feel like a tightrope, just more solid, although when it gets narrow, you begin to wonder.") This may be the best metaphor of all to appreciate management learning, as Minzberg argues.

4.2 The Significance of IMPM in the Global Knowledge Economy

In the global knowledge economy, IMPM is significant as not only cross-cultural but also a knowledge-management education program. The intermingling of these cross-cultural and knowledge-management aspects for management learning highlights not only (1) the inter-cultural interaction between academic management knowledge and business management knowledge, but also (2) the multi-cultural interactions among different ethnic nationalities, business industries, academics, professional functions and so on. The intermingling of these multi-faceted cross-cultural and knowledge-management aspects can be addressed by a framework of cross-cultural knowledge management, or as we call it, "cross-epistemic management." This framework then helps to explain IMPM as cross-cultural management education.

Thus, as a program of “worldly collaboration” and “experienced reflection,” IMPM addresses the creative “complex mess” of “diverse cultural reality” for “learning and connectedness across the world.” In other words, the IMPM program tries to satisfy the principle of *requisite variety*³³ to meet the challenges of the increasingly complex, global knowledge economy, as a multi-organizational education program that is implanted and embedded in “contrived diversity.”

While generally facilitating the cross-epistemic learning and conversation among different cultures that satisfactorily represent the diversity in the global knowledge economy, IMPM is also significant in some more specific senses. For instance, the IMPM approach signifies the emergence of intra-regional learning as a result of the partnership between Japan and Korea. Consequently, in Korea an “explicit inter-firm” and in Japan an “implicit intra-firm” collaboration pedagogy have evolved in action within the collaborative mindset module.

4.3 What are the Current Problems and Limitations in IMPM?”

In order to signify the leading-edge characteristics of the program, this study of IMPM highlights a framework of cross-epistemic management that addresses not only the myriad aspects of culture and knowledge but also their entwining for management learning. In the mean time, the current problems or limitations of the program identified as a result of this study are provided below:

1. **IMPM represents a partial “worldly”-ness:** IMPM claims to be worldly rather than global, to emphasize the integration of indigenous and international management knowledge. However, the local indigenous knowledges that are represented in the program are mostly those of the multinational companies from developed countries, while small and medium enterprises and developing countries in this world are underrepresented. This is an important concern that ought to be addressed more considerably for the betterment of the cross-cultural learning in the program.
2. **Impact on practice of participating organizations is limited:** Even if the leading-edge, IMPM has not yet been totally able to address a major concern of education, how learning in education can be applied to real practice. Although this criticism of IMPM is considered to be a shortfall on behalf of the companies, for a management education program that signifies cross-cultural learning this is again a crucial criticism.
3. **Creative and critical reflections are limited to individual incidents:** As a state-of-the-art, experimental program, some of the innovations and leading features of IMPM are not yet systematic enough. For instance, reflection that leads to critical and creative thinking is limited incidentally to certain individual cases. This limitation also ought to be considered as an important

issue for a management education program in the global knowledge economy. To some extent, this issue can be understood in a way that, not only IMPM itself, but also the existing frameworks of theory and practice themselves, do not yet sufficiently address these more creative and critical types of reflection. For instance, by their nature creative activities are expected to be unexpected and unsystematic. Or, such a top-level program may need to be more elitist than emancipating. However, still it should be underlined that in the knowledge economy, not only critical but also creative thinking demands to be managed and learned. This becomes more important for a management education that offers itself as a template for the diffusion of its innovations.

4. Virtual facilities are not developed enough: Even if there is a deliberate decision to use more analog low-tech but high-touch ways of learning and practice of soft skills like reflection, the current hard technology at use in IMPM ought to be brought to a level that can at least catch up with the current use of digital technology for softer, more touchy ways.

5. Refraction as a Framework to Address the Limitations of IMPM

We hope the above information about the special characteristics, significance, current problems and limitations of IMPM identified as a result of this action research provides a useful picture of the program in general. Now, we discuss a framework of “refraction” to address these limitations, providing more specific related information. This notion of refraction will be based upon and complement the concept of reflection.

5.1 Reflection

As discussed above, even if it is a leading-edge program that emphasizes educating managers on the edges, and has significant impact on individual participants, IMPM has not yet been totally able to cross the edge and have a real impact on organizational participants. This issue is enough to start questioning the limitations of the program, especially its “experienced reflection” pedagogy, and then look for ways that these limitations can be improved.³⁴

Some explanation of how learning about “experienced reflection” could be or could not be influential as such, can perhaps be found in the conceptualization of reflection, within management learning and the IMPM.³⁵ Reflection is a significant concept for making sense of, learning about, knowing, acting on, creating, and transferring knowledge. This vast range of conceptualizations also makes different interpretations and derivations of the concept possible. The comprehension of reflection can come from sources as various as psychoanalysis, physics, religion and

social movement theories, as well as from different levels, from intra-individual to inter-social.

We can provide an easy explanation about physical reflection, which we commonly come across in our daily lives, such as the image of our face in a mirror. However, there is more to this, if we recall the story, or the picture, of "Echo and Narcissus", painted by Waterhouse (1849-1917).³⁶ While a mirror image is a reflection we perceive with our eyes, an echo is a reflection we perceive with our ears. Furthermore, according to the myth: Narcissus falls in love with himself, his own reflection on the water; and finally dies, trapped by an obsession with his own beauty; where he dies, narcissus flowers grow.

Finding their roots in such mythological stories or other works of the classical age, psychology and psychoanalysis make use of reflection as well, such as in the works of Lacan, or in transactional analysis. Similar links between the natural world and the social world provide rich sources of metaphorical relations to explain and use the concept of reflection, such as in the work, "Future and Past are Relative" by Alizadeh.³⁷ With regard to this, in the IMPM, one of the important aspects of the reflection concept is that it is not limited to past experience. Together with past one can reflect on future, for instance about one's purposes or plans to reach these purposes. By reflecting past and future, then present experience can be "unfolded", with respect to the original meaning of the word, "re-flect."

Management of self-knowledge through reflection is important, and there are personal ways to reflect on our own selves. For instance, to use a physical metaphor, consider a person inside a room looking out from a glass window at twilight. As it gradually gets dark, the window glass turns into a mirror, reflecting the person together with the surroundings, rather than what exists outside. In daily life, keeping a diary, a morning run, taking time off for a trip to a place that has not been visited before nor for a long time, or a relaxing shower can all contribute to personal reflection. Similarly, field trips, reflection papers, and insight books are among the tools that are used in IMPM for personal reflection. Furthermore, it is also important to consider reflection as a collective act that includes other people.

This inclusion of others can be at different levels such as considering self-knowledge in relation to others, or assuming social responsibility for contributing to the reflective acts of others, and learning from their reflections. In the same sense, we can also reflect on ourselves using another person as a mirror. In the story of Echo and Narcissus, Echo, who falls in love with Narcissus does not hesitate to assume the role of the reflected image of the man she loves, and echoes back what Narcissus tells to his beloved image in order to win his heart. The same logic applies using another context as a mirror to reflect upon our own context, as when, for instance, we visit a different place or the same place at different times. Reflective debriefing discussions or the Management Exchange program are very

good examples of this collective reflection, when, using other persons as mirrors, participants get the chance to reflect on themselves and others.

5.2 Refraction and Reflection

In general, reflection and the reflective mindset are useful concepts for management learning and professional/practitioner development and training (Moon 1999, 2004; Taylor 2006), but there are other related issues that can be better explained with the concept of refraction in addition to reflection. For instance, in general, one of the most important things that participants learn from the IMPM is how to ask the right questions, which can be linked with critical and creative skills for problem-solving, being able to think out-of-the-box or non-linearly where 'everyone else' thinks in-box or in a linear fashion. And, this non-linear, critical and creative thinking is associated more with refraction than reflection. Thus, a closer look at refraction would be helpful to understanding issues related with reflection. To explain refraction we would like to give two examples, again from the physical world.

First, the human perception of a break in a straw in a glass of water is a good example of being able to see non-linearly. This could be interpreted as the ability to think in a non-linear but rational fashion through refraction. The other interpretation, the rationalized misperception of something actually linear, is another issue. Our mind has the tendency to simply perceive the course of light in a linear fashion, even if the course of light passes through different contexts. As a result, we mistakenly see a break in the straw. This simple misperception based on linearity is common in our thinking and decision-making. A similar natural phenomenon we observe in optical prisms is the refraction of sunlight. Just as white light turns into different colors as it travels through and out of the prism, refraction can help individuals to think colorfully and creatively, to become able to see the true different colors that construct the white, among others who can see only the visible white. Another optical instrument can then be used to convert the split colors into one, maintaining the continuity of the phenomenon without reducing it into separate pieces, unless this separation would be done deliberately, for, for instance, analytical purposes.

In fact, by nature, reflection and refraction exist together, and can be conceptualized with respect to each other, with their special cases, such as the total internal reflection as an 'ideal' refraction in fiber optics, as well as practical complications, an everyday example of which is seeing our reflection when we walk by a store window. Thus, reflection can be understood better by considering refraction, and we should use both of these concepts together.

5.3 Refraction for IMPM

We suggest that in addition to reflection, refraction is also an important concept for management learning. Reflection and refraction together can play an important role in the transfer of learning and knowledge from one context to another. Here temporal and spatial concerns are very important, together with human perceptions and misperceptions, which are exemplified by the above examples of the prism and the straw in a glass of water. When we deal with the transfer of data and information, a simple linear understanding of reflection and refraction can be sufficient, as in fiber optics, but when it comes to the creation and transfer of knowledge from one context to another, the situation becomes more complex and chaotic, necessitating a non-linear, multidimensional explanation resembling perhaps a continuous spiral as in the knowledge-creation model of Nonaka & Takeuchi (1995), butterfly flapping of Lorenz's Attractor, or the infinity symbol.

The IMPM program also recognizes the necessity of dealing in the right way with the complex nature of knowledge transfer and, to a certain extent, facilitates the transfer of knowledge, learning, and experience of participants from workplace to the program and then back again to the workplace. Theses and ventures are important examples facilitating knowledge transfer between the educational program and the organization. For instance, as discussed above, in participating organizations, an executive sponsor works with the participants and the IMPM tutor in the venture and thesis, linking the learning to the company's strategic priorities, or "burning strategic themes." (Purves: 11)

Reflective and refractive interactions are equally important, when we consider individuals as agents and actors in their actual work and personal life, or as members of their respective communities of practice, or as members of work groups and other social formations. Moreover, the free and creative thinking associated with reflection and refraction coincides with the 'emancipatory' nature of the term, as an important social dimension. This stresses being critical and evaluative towards an outcome that is transformative and liberating in effect, not only for the individual but also for society (Habermas 1973, 1972; Mezirow 1990; Reynolds 1998). That critical aspect of reflection is also encouraged in the reflective mindset at the IMPM, although there is contradictory evidence about whether the program is able to produce successful results on this. (Liu 2001)

To what extent is the IMPM successful for the learning of reflection, and how can the pedagogy of experienced reflection be improved, are also issues of discussion for the faculty and researchers of the IMPM. For instance, IMPM's "Management Exchange" program, in which participants pair up and spend a week at each other's work place, provides an enabling tool for personal and collective reflection. Within this program, each individual acts as a mirror for the other. In this way, one gets

the chance to see one's own experience through the eyes of another. The faculty (Western & Gosling) identifies three stages within this reflective learning experience: (1) "Acquiring Knowledge", (2) Reflective Thinking", and (3) "New Mindsets". The flow of learning in the Management Exchange leads to emergent thinking, imagination and creativity in the third stage, although not all the participants manage to cross the boundary between the reflective thinking and this emergent thinking, and reach the higher part of the evolving new mindsets.³⁸ Furthermore, Liu (2001) and Medeni (2001) argue that a more critical and creative perspective could be developed for a reflective mindset, which then could be incorporated into the philosophy and practice of the IMPM program and its reflective mindset module.

One of the reasons for this contradictory evidence and discussions can be found in the conceptualization of the IMPM reflective mindset. This does not make an explicit distinction between reflection and refraction, while incorporating some of the discussions about refraction into those of reflection. In the same fashion, in general, it is unusual to have discussions about refraction, when we talk about a reflective mindset or reflective learning and practice, although refraction is an important concept for management learning, in addition to reflection. Refractive issues either remain unnoticed or are incorporated into the conceptualizations of reflection. Examples of this can be found in Moon's classification of Best Possible Representation of Learning (1999); or in the title of an e-Portfolio Conference (2004), "Reflection Is Not a Mirror, It's a Lens", which works by refraction. On the other hand, the two concepts can be distinguished, for instance by associating reflection with being able to see things as they are, and refraction with seeing things differently, both of which are important. Nevertheless, it would be useful to consider reflection and refraction together, and complementing each other in order to make our general point and develop our discussion for management learning and reflective mindset.

The transfer of knowledge from educational context to the workplace is a very problematic concern in the real world. In the IMPM, in spite of the findings that knowledge acquired in the program is transferred to the workplace through ventures, reflection papers and so on, still there is evidence that what is learned in the educational program cannot help much in the workplace, after the participant returns. How to learn to be refractive, so that the learned knowledge, which is mostly internalized, thus tacit, and specific to a social environment, can be converted into useful knowledge that reflects the characteristics of real life, and accommodates various conflicting, contextual issues related with education, company and personal life, is a good question for academicians and practitioners to research. Improving our conceptualization of knowledge transfer with the incorporation of refraction could prove to be useful for addressing this problem.

Recognition and incorporation of refraction into our conceptual frameworks could also help to clarify and develop our understanding and use of reflection, which has been associated with too many issues.

Even in the IMPM, which is a very good example of how reflection can be learned and practiced, it is pointed out that in the Management Exchange program, different stages of learners' reflective experience are identified, but not all participants can reach the certain stage that leads to emergent thinking, imagination and creativity, as we have discussed above. One suggestion regarding this could be that, instead of trying to relate all these stages with one-all-encompassing framework of reflection, treating and targeting these different stages differently by relating the higher stages with refraction rather than reflection could be useful, for not leaving to individual efforts, but systematically supporting at the organizational level the pursuit of this ultimate learning experience. Arguably, some refractive aspects are found already in different parts of the existing program, such as the IMPM Management Exchange program, reflective and analytic mindset. Similarly, knowledge transfer, critical thinking and creativity features can be found in all five mindsets of the IMPM, as well as in other management education and development programs in different ways. However, these refractive aspects and features can be more systematically identified and incorporated into the program curriculum design and delivery. Again, when we suggest learning refraction, we by no means undervalue the learning of reflection. Participants should learn refraction in relation to reflection, while these two concepts are distinguished and the interrelations between them are identified, such as considering refraction as critical and creative reflection, and highlighting their complementing roles in knowledge transfer.

Although there are other management education and development programs, and knowledge management education programs that incorporate the learning of reflection, with experienced reflection pedagogy, IMPM is the leading edge in management development and education. Still, the integration of refraction into the curriculum, which would be supported by the application of new learning methods and technologies for reflection and refraction, can improve the program considerably.

The importance of an interface that connects and separates at the same time as a seam or a permeable membrane becomes more visible, when related issues like co-existence and across-boundary cross-cultural interaction are highlighted. Depending on the level of difference between the characteristics of the interacting entities or contexts, reflection or refraction occur at the interface of the cross-boundary interaction, which can take place among individuals, organizations or cultures. The reflection, which does not pass through the boundary but bounces back, can be what we can learn about ourselves as a part of this experience with

entities that stand outside our boundaries. The refraction is what moves across, to the other side, as the boundary interface refracts the interaction in order to adjust to the conditions of the moved context. Managing the boundary interface can help us determine the nature of the interaction across different contexts, facilitating, for instance, refraction so that we can develop a beneficial relation among different parties such as school and workplace, bridge conflicting paradigms and world views, make sense of the true nature of the reality around us, change our thinking from in-box to out-of-the-box , solve complex problems, deal with chaotic situations, be more critical and creative, or simply co-exist.

5.4 Virtual Refractions

Although he proposes an architecture and technology (used in general terms) for the learning of reflection, Mintzberg (2004) suggests that being low-tech and analogue in contrast to high-tech and digital works better for the facilitation of reflection and its learning. Perhaps reflecting this perspective, in IMPM so far a digital network that connects and facilitates the knowledge and experience sharing among the participants, tutors and graduates yet to be used effectively, as admitted by the staff.³⁹

However, we think that even some simple digital technologies (used mostly in terms of specific computer and communications technology) can be very effective for the learning and practice of reflection and refraction. For instance, not only are computer-mediated collaborative learning or asynchronous communication tools (such as blogs, email, discussion forums) supportive of reflective interaction and learning; but fantasy role-playing and creative story-writing in digital environments or virtual communities can contribute considerably to the practice and learning of reflection and refraction, as well. The virtual environment provides reflective and refractive filters or potential spaces for social representation and knowledge creation.

In return, facilitated properly, the experience in these virtual worlds can have important impact on real lives not only during but also after the education program, whenever the participants go back to their *real* busy work. Thus in the learning and practice of reflection and refraction, while we can benefit from effective analog and low-tech methods (such as story-telling in real life), this should not prevent us from using some appropriate digital methods and technologies, even trying the development of new ones (such as story-telling and story-writing in virtual life). These technologies could be useful for learning to become not only reflective and refractive, but also more collaborative. In other words, reflective and refractive learning should be facilitated for becoming (more) critical, creative and collaborative, as discussed previously.

The artificial, or virtual, experience of role-playing could also complement the forced experience of project work, the simulated experience of case study, the added experience of action learning, and the natural experience of experienced reflection, in accordance with Mintzberg's suggestion for blending different pedagogies for management, which was discussed before. As virtual experiences are increasingly becoming a part of our real lives, hybrid digital environments for both virtual and natural experiences can be used more extensively and purposefully for the pedagogical practice of experienced reflection, for instance. To sum up, while we by no means undervalue the learning of reflection in the IMPM, we take note that a refractive mindset needs to be incorporated more systematically into the curriculum design of this leading-edge management program.

5.5 Critical Reflections on Management Learning, IMPM and their Study

For the learning and practice of management, even if concerns about creativity, critical thinking, and transfer of knowledge from the educational context to the work context can be addressed with refraction (together with reflection) in theory at schools such as the IMPM, these are still problematic concerns to put into practice in the real world. Reflecting purposefully for creative or critical thinking would be always easier to do in theory than in practice. Similarly, the characteristics of the education/theory and work/practice contexts are so different, that the knowledge refracts significantly during the in-between transfer, making it very hard to deal with the actual knowledge for both the learning at school and the management at work for different individual and organizational purposes.

Distinguishing the context and circumstances of an educational program from real life, for instance, as more *sheltered*, brings up other relevant issues and questions, as well. Previously it was mentioned that the IMPM was considered as a "playground" where participants get a chance to take some time off from their real life - for a certain period of time, until they return to work. If it is such a playground, then to what extent should the participants be expected to bring what they acquire with them back to real life, when they return ... What if it is seen *just* as a "playground" with which organizations reward some high-flyers ... Since these participants are high quality, clever, capable people, whatever they do will be successful anyway, so how can the impact of the program on their success be determined ... In general how can the performance of such a (graduate management) education program be measured better ... Such concerns are in the minds of people we researched, and in ours as well. What is learned in the program, how well it is learned, how it is learned, and whether it is good enough or not can still be argued, in addition to how it can be put into practice. Pedagogically,

how information is converted to individual and then organizational knowledge and action can be evaluated.

These issues about the evaluation and evolution of the IMPM, not only as a pioneering management education program, but also as a normal (management) education program are to be the subject for further research, as they are important for realistically identifying the value and characteristics of the program, so that these characteristics can be furthered and diffused to other education or development programs.⁴⁰ Nevertheless, even if we can draw upon our research on cross-cultural management education and IMPM to reach general conclusions about IMPM, this research itself has not specifically aimed to make an overall and thorough assessment of the IMPM program. The five mindset modules and other program activities should be studied individually and comprehensively in order to reach such an aggregate, comprehensive conclusion.

Whether it is successful at the transfer (utilization, or application) of knowledge from education to practice, or simply provides a playground for participants or not, the IMPM is an important case for highlighting the interaction between individual, organization and the education program itself, as the program tries to get the involvement of the company with the learning of the individual participant, and tailors itself to address the concerns of the individual and organizational participants. The interaction among these three parties also can be considered within a unifying knowledge creation and management mindset, where we can think about and discuss knowledge-creating individuals, companies and organizations.

6. Planning Ahead: A Journey to Wisdom

If we recall the previous discussion of the IMPM faculty⁴¹, management education is in search of a mythical final harmony, whose end is not as important as the journey itself. This is similar to the journey of “the conference of the birds” in search for the mythical bird Simorgh:⁴²

“The conference of the birds” is a book of story poems that recounts the longing of a group of birds who desire to know the great Simorgh, and start their journey toward the land of Simorgh. One by one, the birds drop out of the journey, each offering an excuse and unable to endure the journey. Eventually only thirty birds remain as they finally arrive in the land of Simorgh — all they see there are each other and the reflection of the thirty birds in a lake — not the mythical Simorgh. The thirty birds seeking the Simorgh realize that Simorgh is nothing more than their *transcendent* totality. Its most famous section is:

Come you lost Atoms to your Centre draw,

And be the Eternal Mirror that you saw:
Rays that have wander'd into Darkness wide
Return and back into your Sun subside (Attar 1177).⁴³

In one account, Simorgh was said to live 1700 years before plunging itself into flames; in later accounts, it is immortal and is said to have a nest in the Tree of Knowledge," or "the Tree of Life" in the Garden of Eden. This can be compared with the Phoenix: The bird and its nest are "reduced to ashes, from which a new, young phoenix arises."⁴⁴ Simorgh, image of which represents the sophisticating journey of wisdom, used by Suphism, has a philosophical antagonism towards Serpent, image of which also represents the embodiment of the wisdom transmitted by Sophia, used by Gnosticism.⁴⁵

As Costea & Gosling discuss, however, IMPM "tells the story of an alternative journey" that precisely aims to engage management education with the creative 'mess' of life in organizations around the world. The program turns away from a search for an illusive final state, to a search for the daily 'dis-ordered' realities of managerial practices. However, it is crucial to see IMPM against the background of the dominant trends in business schools, in order to comprehend the "terms of reference for this move."⁴⁶

For IMPM, these terms of reference are the modules, as searches into local realities of academic and business management knowledge. During these searches into the time-space of the local realities, in Kant's terms, space enables the participants to know the co-incidence, while time enables them to know succession.⁴⁷

As a result, IMPM can be considered as a journey to wisdom, with multiple searches into local realities through the modules as terms of reference. This journey to wisdom that IMPM represents brings a different perspective to management education as well as knowledge management education where learning of wisdom is distinguished from that of information and knowledge.

Consequently, IMPM itself can also be considered as a knowledge-creating spiral. This knowledge-creating spiral consists of the modules in different countries. As a curvature of time and space, this knowledge-creating spiral flows around the world, bending in response to local realities in its path, and carrying everything in its diversity along its twists and turns. Not only each module within one IMPM cycle, but also each IMPM cycle, contributes to the accumulation of knowledge within this knowledge-creating spiral.

With respect to this IMPM spiral, as one suggestion for the future, the program could also benefit from regional realities to complement local (and global) realities. Such search into not only local but also regional realities is already in action in the collaborative mindset module in Japan and Korea. Benefiting from this experience,

IMPM can benefit from the partnering of two neighbouring countries for one module.

This suggestion can be conceptualized within a framework that emphasizes addressing not only local and global but also regional diversity of cultures. According to this, regional diversity can be understood as the interplay between local and global diversities. A regional outlook then can provide insights about cross-cultural interactions both for local and global issues. As a result, such regional perspective also fits with a conceptualization of in-between-ness between different knowledge systems that themselves are the results of the interplays among different epistemes and ontologies.

Accordingly, the IMPM program could commence with England-France, then could move to Turkey & Russia to provide the historical heritage and current condition @ the “center of the earth,” to be followed by India-China, and then Canada-U.S.A. and concluded by Japan-Korea. In summary, rather than a linear modular design, this kind of program would have a nautilus-like structure that is composed of accumulating chambers resulting in a knowledge-creating spiral. Here the and nautilus shell design could also be considered as an anaphora, “a carrying up or back” in Ancient Greek, and an amphora as “a whirling eddy” in current Turkish, or an amphora as “a carrying craft” in a more common sense - with its all mental, real and virtual aspects of time-space, the last of which are already being represented by the well-known sign for the Internet navigation, @.

Such “@” notion matches well with the notion of multiple searches for the “daily ‘dis-ordered’ realities” of management knowledge that is advocated by the “alternative journey” of IMPM. This is to apply a systemic inquiring attitude towards the practice through the asking of circular, hypothetical and reflexive questions (Kikoski & Kikoski 2004) frequent enough in a certain period of time,⁴⁸ which is eminent in IMPM with its modular structure based on 5 mindsets spread over 1.5 years, or one “IMPM Cycle.” In this way, IMPM participants find the chance to frequently question the taken-for-granted assumptions of worldviews of each other during the modules and tutorings.

If we elaborate further on such frequent questioning, one other important issue to highlight is the critical questioning regarding experienced incidents. The questionings are critical enough to cross the boundaries regarding the occurrence of the incidents, which are also mostly critical incidents for the students. Besides, these questioning processes accommodate incidental happenings as inputs and outputs of these questionings. Furthermore, these reflective and refractive questionings are not only individual but also collective processes, highlighting a co-incidental aspect, as well.

In addition to this, during these multiple, frequent inquiries into diverse cultural realities, practitioners can have insights and outsights of the existing management knowledge as not only participant observers but also by-standers. Both participant observation and by-standing can provide intimate insights as well as critical outsights. Participant observers can take different stances that can provide them either reflective insights or refractive outsights. As for the by-standing observers, standing at the in-between-ness enables them to take either “insights out” or “outsights in”.

6.1 Suggestions for Improvement

As a result of this study, some more practical inferences can be made with implications not only for the IMPM program but also for curriculum development for management education. Firstly, the following suggestions are made as for the practical implications of this action research to address the current problems of IMPM:

1. Furthering the worldly-ness of IMPM by systematically incorporating business schools and attracting business companies from such emerging economies as China, Russia and Brazil, and fast-growing economies such as Turkey. This systematic incorporation can also be accompanied with a regional perspective that complements local and global perspectives.⁴⁹
2. Second, incorporation of a cross-cultural refraction mindset into the IMPM pedagogy, to complement “experienced reflection” and “worldly collaboration” would be suggested.
3. This incorporation of cross-cultural refraction mindset can not only improve the impact of the program on practice, but also facilitate the cross-cultural learning and practice of more critical and creative types of reflective interactions. Furthermore, this could attract the art-oriented practitioners, who are underrepresented among the craft-and-science-oriented practitioners of management education, with certain implications for visionary leadership education. (Mintzberg 2004)

As for the curriculum development for management education, secondly, a Nautilus model of practitioners’ life-long-learning is suggested. This Nautilus model that can be used to improve the conventional sandwich model in general education is discussed below:

6.2 Moving towards a Nautilus Model for Education

In contrast to a sandwich model for education that relies on one practical experience between two academic experiences, the Nautilus model suggests

increasing the number of practical experiences as well as academic experiences in the education program, so that more frequent boundary-crossings between academic management knowledge and practical management knowledge are facilitated (Figure 2). In that sense, IMPM is considered to be a primitive case of this Nautilus model.

As a spiral shell, the Nautilus model provides a good analogy for the knowledge-creation spiral (Nonaka & Takeuchi 1995), which should be incorporated into the future agenda of education programs, in addition to the information-acquisition and knowledge-transfer aspects. In that manner, learning can be facilitated to deliberately contribute to systematic knowledge-creation.

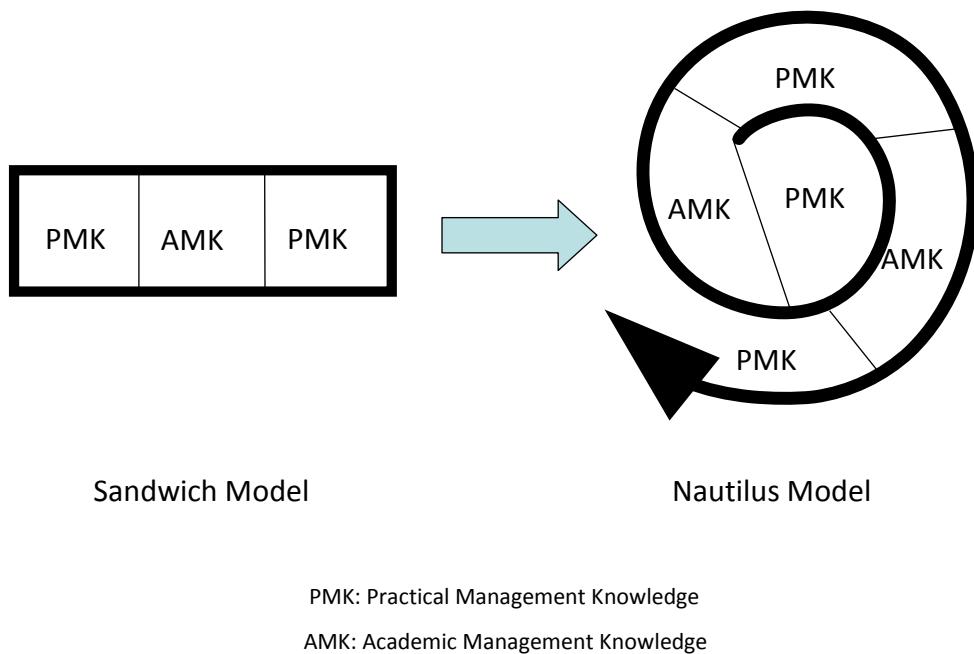


Figure 2: Comparison of Nautilus Model and Sandwich Model

7. Conclusion

In this paper we have presented our findings about an action research into a leading-edge business education and management learning program, IMPM, hoping to provide insights about how IMPM works as a significant business

education program in the global knowledge economy. Within this action research perspective, our aim has been to provide suggestions for program improvement, identifying its current limitations and problems. Our suggestions would also provide guidelines for advancement of the current management education and development programs in general.

Following a background information about the research methodology, in this paper, we have given a critique of management learning, specifically discussing Mintzberg's ideas and their critiques. We have provided an in-depth literature review on reflection and critical reflection for management learning, underlining recent critics and advancements. Then, the unique, leading-edge characteristics, as well as current problems and limitations of the IMPM in the global knowledge economy has been discussed. "Refraction" has been introduced to complement reflection, thus, address limitations of the program. We have concluded our discussion with specific suggestions for improvements.

We indeed hope the study presented in this paper would be useful for the development of the future business education programs. In the mean time, we also further our work, conducting follow-up e-mail interviews and surveys, thanks to the support of previous program participants. As for future work, understanding and documenting better how business education and management learning programs could contribute to the development of people or organizations that managers have interactions, but not only the development of managers themselves is an important issue to focus in a cross-cultural, knowledge-based economy and society.

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ENDNOTES

¹ Here "cross-cultural" stands for not only international but also inter-organizational interactions. In more general terms, it tries to capture multi-level interactions among individual or organizational entities that represent different cultures and sub-cultures. In order to prevent a confusion between concepts of culture and knowledge, the use of the term, "cross-epistemic", could also be suggested.

² Discussed at the Twelfth COE Seminar, "Knowledge Sciences and a New Episteme," Lectured by Prof. Wierzbicki, School of Knowledge Science, JAIST, September, 2006, Japan. Prof. Umemoto's comment to his lecture.

³ "Mindful Inquiries in Social Research" Bentz & Shapuro (1998) and "Designing Social Inquiries" (DSI) (King, Keohane, Verba 1994).

⁴ "Reflective Practitioner" Schön 1983, "Action Science" (Argyris, Putnam, Smith 1985), "Action Research" (Schwandt 2001), "Action Research for Improving Practice" (Koshy 2005).

⁵ For triangulation, in spite of my involvement as an action researcher, in some instances a critical "respectful distance" (Schwandt 2001) has been maintained, providing not only continuous access to intimate information and insights but also leverages to make inferences that can be analytically generalized.

⁶ For instance, as a part of this action research into IMPM, I have participated in the IMPM collaborative mindset module in Japan in 2005 and 2006, each time committing to a one-week period of engagement in the module, and taking part in the daily activities of the people among whom IMPM is being studied. However, for the first year, the nature of this participation was more of a preliminary work for the following year, where a stance of "bystander" has been more appropriate within a case study approach. This perspective is in comparison to an intervening participant observant that has become prominent in later times of this action research. These times can then also be compared with the earlier times of the action research in England, where the interventions into the practice were of a more limited nature.

Having these two complementing perspectives in use where appropriate has been beneficial for this study, allowing me to reflect and refract on this action research. This notion of refraction that complements the concept of reflection will also be explained later.

⁷ Also called, among others, new, innovation, post-modern economy; and information, learning society.

⁸ Mintzberg (2004: 16-17) also discusses that "there are people who have both the will to manage and the zest for business, just as there are people who have neither", furthering the ideas of Whitehead (1932).

⁹ (also administration, or management?)

¹⁰ Rather, the art and craft aspect, "the intellectual entrepreneurship," should be emphasized, as well (Chia 1996, Mintzberg 2004).

¹¹ Gosling & Westall contribute to this discussion, relying on the roots of reflection as a word / term: "The term 'reflection' is derived (as Derrida points out) from the Latin 're-flect', to 're-fold'... a habit of looking back at each train of thought and behaviour, to bring to the surface what was submerged and hidden. If one takes a strip of paper and folds it back on itself, the surface that was on top is now folded inwards, and the underside is exposed. The purpose...was not simply to re-play the past – rather to use the moment of 'flection', the fold, to change both direction and the framework of thought." <http://www.impm.org/goslingwestall.pdf>. pp. 3, last access 30.Oct.2006.

¹² As outcomes from the reflective process: "some form of action; a process of critical review; personal and continuing professional development; reflection on the process of learning or personal functioning (meta-cognition); the building of theory from observations in practice situations; the making of decisions/resolution of uncertainty; the solving of problems; empowerment and emancipation; as well as unexpected outcomes (e.g. images, ideas that could be solutions to dilemmas or seen as creative activity); emotion; clarification and recognition that there is a need for further reflection; and learning, knowledge and understanding can result. Learning is deemed to be an outcome of reflection in its own right, however; in fact all the outcomes in this list are concerned with how we can use

understanding and knowledge to achieve other purposes, linking reflection with the process of learning, although not being involved in all forms of learning." (2004: 83-85)

¹³ For instance, Moon discusses that working on stories can act as mirrors, "reflecting back to a person another's conception of what is perceived to be the first person's internal experience or a modification of it."

¹⁴ For instance, Pryce (2002) suggests that in response to reflection's failure to address the postmodern cultural contexts, refraction might be proposed as a helpful concept. It is suggested that through a more sociologically prismatic lens, the realities and truths of the reflective narrative can be interpreted as a transformative means of resistance to the dominant medicalised discourses. (Pryce 2002)

¹⁵ Authors define a framework of "expansive and restrictive learning environments" and discuss the implications of this expansive restrictive framework for workplace learning and policy interventions.

¹⁶ "The creative skills to refract are required to understand and work with supracomplexity by identifying differences between many similar looking physical and metaphysical variables and all their interrelationships. Intellectual explorations will result in encounters with such physical and discarnate entities that, due to the lack of our experience with them, will appear to be similar. With refractivity, one will be able to see minute differences and be able to divide a set of all identical-looking elements into several subsets in accordance with their discovered microattributes... In some form, mostly at the macro level, the skill to refract has been in use for inquiry into physical and life sciences. Its use in all other fields of arts and sciences will tremendously increase. In fact, opportunities in the future will mostly arise by successful application of refractive skill in all areas of human concern, including business, economics, and human behavior in organisations."

¹⁷ "It is the ability to comprehend a myriad of physical and discarnate variables with all possible interrelationships at any point in time and to regress or extrapolate them along time and space dimensions to any other point. Primarily, this skill gives one the ability to operate variables in these two dimensions through conceiving, imagining, and envisioning. It enables one to connect past, present, and future, first in searching for real and fortuitous factors that relate to given physical and/or abstract elements and then, understanding interactions among the time dimension."

¹⁸ The concept of Trans-Cultural Refraction (T.C.R.) improves upon the concept of Inter-Cultural Adaptation (I.C.A) in the following three ways; 1) defining the process of change for innovations; 2) providing simulation models for innovations in the transportation processes; and 3) defining refraction as a form of adaptation within the objective assessment process for the adoption of innovations. (<http://www.kuis.ac.jp/icci/publications/nl/pdfs/35.pdf>, last access, 30.Oct.2006)

¹⁹ <http://www.impm.org/overview.htm> last access 22.Nov.2006.

²⁰ Costea and Gosling (<http://www.impm.org/pdf/intro.pdf>, pp.1-2, last access 22.Nov.2006, also provided a brief chronology of the program).

²¹ Ibid.

²² As for examples of previous works about this blending in the literature; while a perspective of cross-cultural management as knowledge management is discussed by Holden (2002), a perspective of knowledge management as cross-cultural management is partly discussed by Medeni, elsewhere.

²³ Costea and Gosling (<http://www.impm.org/pdf/intro.pdf>, pp.1-3, last access 22.Nov.2006).

²⁴ Ibid.

²⁵ Ibid.

²⁶ Costea and Gosling argue that “seen in historical perspective, the development of the business curriculum shows a continuous move away from the complexity, diversity and openness of the world of organizational and managerial practices. The most obvious case in point illustrating this process is the evolution of the MBA framework. Its history is a search for a model of business education combining conflicting features: on the one hand, simplicity and generality, and on the other, universal relevance and coverage of all situations. (<http://www.impm.org/pdf/intro.pdf>, pp.1-3, last access 22.Nov.2006).

²⁷ “Organizational worlds, like all social phenomena, are immensely complicated and entwined with the wider worlds of local cultures. For this reason they cannot be reduced to universal laws and ‘modelled’ accordingly.” (Costea and Gosling (<http://www.impm.org/pdf/intro.pdf>, pp.1-3, last access 22.Nov.2006).

²⁸ Ibid.

²⁹ In the sense of not only the inter-cultural searches between academic learning and business practice but also the multi-cultural searches between cultures of, among others, various nations, industries, organizations, business functions.

³⁰ Mintzberg (2004) argues as “borders between teaching and learning. Borders between and among ‘students’ and ‘instructors.’ Borders between the business functions. Most significantly, a high border between the process of educating and the practice of managing. All get in the way. We need to build bridges across these borders. .. What also get in the way are the most common borders of them all, between countries, but here because there are too many bridges across them. As a result, the business schools are remarkably similar around the world, which stifles their innovation as well as their attention to local context. It is as if we have discovered universal truth and every manager in the world must have it poured into him or her. This represents the ‘global’ agenda at its worst.”

³¹ This necessity of risk-taking and not being afraid of being at odds with for the comprehension of the boundaries generally cannot be satisfied with ordinary organizational roles and attitudes, and may justify the application of an attitude of institutional and intellectual entrepreneurship (Chia 1996). Entrepreneurship is a process of cultural innovation, an attitude for engaging the world. Intellectual entrepreneurs, both inside and outside organizations, “take risks and seize opportunities, discover and create knowledge, innovate, collaborate and solve problems;” (Cherwitz, Sullivan & Stewart 2002) while these risks and opportunities are very much available at the spanning range of the boundaries that stand between, and thus define, inside and outside the organizations.

³² For Mintzberg, working in a program like the IMPM often feels like walking on a tightrope—in fact, on a whole set of tightropes concurrently: “There are the tensions between the global and the local; between participants and their organizations; between time in the program and time on the job, let alone time at home; between the tacit approaches of the East and explicit approaches of the West. These all come to our classrooms. In them, there are the tensions built into the mindsets themselves—for example, between action and reflection (need to do, need to think); the analytical and the worldly (need for the explicit; need for the tacit); change and organization (need to adapt; need to stabilize). More generally, there are the tensions between theory and practice,

between the conceptual and the concrete (the push of knowledge versus the pull of issues); between teaching and learning, also between individual learning and shared learning, and between comfort and challenge. There can also be a tension between management education and management development, not to mention organization development. Particularly disconcerting can be the tension between real learning and learning demonstrated through measured assessments (whether grades for the university or "deliverables" for the company)... To take a prominent one of these, imagine a manager walking along a tightrope, carrying one of those rods with weights at each end: the pressures of work on one side and the requirements of the university degree on the other. The manager in the middle is the learning experience. If either weight is too heavy, or too light, he or she will tumble over. Balance has to ensure that the job doesn't unduly interfere with the learning any more than the learning unduly interferes with the managing (or the grading and assessing with the learning)."

³³ Heylighen (1992)

³⁴ Besides, again, although IMPM claims to be worldly rather than global, if we are to emphasize the integration of indigenous and international management knowledge this worldly-ness seems to be partial, as well.

³⁵ We can define the art of reflection as the act of contemplating and articulating otherwise tacit past experience and future purpose for present practice that is perceived within a context shaping and shaped by the individual or collective actions. We should try to reflect on what (including how, why etc.) we are doing at present in our relationships with others, with a perspective on both the past and the future).

³⁶ <http://www.liverpoolmuseums.org.uk/walker/collections/20c/Waterhouse.asp> last access 30.Oct.2006.

³⁷ <http://www.javad.8m.com/photo.html> last access 30.Oct.2006.

³⁸ The authors (*ibid*) find out that the ones who go beyond the "reflective thinking" stage into the "new mindsets" stage are the ones that choose or find themselves in turbulent or very culturally different environments that lead them to a non-linear route to learning, which takes place with critical reflection and unboxed mindset.

³⁹ Even if information and communication tools such as email are in use as usual, which in fact addresses the use of technology for reflective thinking; here what we want to highlight is the general tendency to avoid hard technology for soft skill-acquisition.

⁴⁰ There are already diffusions of the IMPM innovations such as the EMBA RoundTables, McGill-McConnell Master of Management for National Voluntary Sector Leaders, BAE Strategic Leaders Programme, and the Advanced Leadership Program (Mintzberg 2004).

⁴¹ <http://www.impm.org/pdf/intro.pdf>, last access 22.Nov.2006

⁴² "'si morgh' — meaning 'thirty birds' in Persian." (*ibid*.)

⁴³ http://www.reference.com/browse/wiki/The_Conference_of_the_Birds, last access 22.Nov.2006.

⁴⁴ (<http://www.reference.com/browse/wiki/Simurgh>, last access 22.Nov.2006). (http://www.reference.com/browse/wiki/Phoenix_%28mythology%29, last access 22.Nov.2006).

⁴⁵ , <http://www.reference.com/browse/wiki/> (under the items: simurgh, and serpent_symbolism, last access 22.Nov.2006).

⁴⁶ Costea and Gosling (<http://www.impm.org/pdf/intro.pdf>, pp.1-3, last access 22.11.2006).

⁴⁷ Kant (1983), quoted by Costea,
<http://www.lums.lancs.ac.uk/publications/viewpdf/000156/> last access 25.Nov.2006.

⁴⁸ For instance, in Toyota any problems can be solved by “asking why questions five times.” (Personal conversation with Prof. Umemoto in 2006).

⁴⁹ This suggestion could be expressed also as the inclusion of more participants from lobal, in addition to local and glocal, if not global, knowledge systems. Here lobal stands for indigenous, academic or practical managerial knowledge that represents SMEs, nationals or regionals from developing countries, in comparison to global that stands for international, academic or practical managerial knowledge that represents multinationals of developed countries.

It should also be noted that such a lobal perspective includes a regional level to complement local and global levels for analytical purposes. This is in accordance with the argument that there is no such local knowledge or global knowledge but that all knowledges are both local and global, or glocal in differing degrees. In that respect, it could be said that while glocal represents a top-down (global > local) perspective of cross-cultural knowledge management, lobal represents a bottom-up (local > global) approach for cross-cultural knowledge management.