

Multiple Intelligences Around the World,

J. Chen, S. Moran, and H. Gardner (Eds.)

San Francisco: Jossey-Bass (Forthcoming)

Introduction

Howard Gardner

This chapter describes the inception of the theory of multiple intelligences after extensive research studying normal and brain damaged populations, the development of normal and gifted children, and the arts and human cognition. It then considers the theory itself and misconceptions about it. Following this, the adoption of MI by educators in the US and elsewhere, and potential differences between countries where the theory takes root or does not, are discussed.

Multiple intelligences and Constructionism in the Digital Era

Antonio M. Battro (Argentina)

The classical picture of cognitive development provided by Jean Piaget has been recast in terms of two factors: the interest in different profiles of intellectual capacities, as put forth in the Multiple Intelligence framework developed by Howard Gardner (1983, 1999) and the new forms of expression and communication enabled globally by the new digital media. The program OLPC "one laptop per child" directed by Nicholas Negroponte is providing to children of elementary schools around the world with new opportunities to unfold the digital skills required in the new era. Multiple intelligences are in action sharing the wide resources of the network. Many disabled children may have access to education using the digital technology. Perhaps a new intelligence, a digital intelligence, is unfolding in the human species.

MI Theory: A Conceptual Framework that Favors an Education for All

Paula Pogr  & Marcela Rog 

This chapter describes the work of L@titud, the Latin American Initiative toward Understanding and Development and other initiatives developed by some of its members. The specific focus is our work to introduce and implement MI theory to promote an education for all in Argentina. Contextualized in Argentina's long tradition of public education and the ongoing debate about pedagogy, the authors highlight specific principles and strategies that L@titud developed to guide the implementation of MI in Argentina's schools. Using specific examples, the chapter illustrates how MI can help schools reach all children regardless of their prior experience and educational background.

Dinosaurs and Taxis: Educating Learners with Diverse Needs

Wilma Vialle, Australia.

In gifted education, MI has provided a means to more broadly define and identify giftedness in students across all economic and cultural groups. It has also influenced the design of curriculum materials for gifted students. In special education, MI teachers have transcended a deficit approach; they have become more positive towards students and recognize a wider range of learning potentials. Through the framework provided by MI theory, teachers have learned to genuinely value and appropriately respond to the diversity of learners in integrated Australian classrooms.

A Decade of School-based MI Teaching Experiments in Macao

Kwok-cheung Cheung, University of Macau, Macao SAR,

This chapter describes a decade long effort to initiate school-based MI teaching experiments in Macao SAR, China. Three aspects of this effort are detailed, and they are: comparing MI theory with traditional Chinese educational thought, developing MI-inspired assessments, and fostering individualized educational practices. Individualized educational practices include four ways to think about the relationship between teaching and MI theory: Teaching of MI, teaching with MI, teaching about MI, and finally, teaching for MI.

MI in China: Outside the Educational Settings

Happy Hoi-Ping Cheung

Chinese believe that people's intelligences diversified, but aim to cultivate all-rounded "elite". Chinese traditional pedagogy can be understood as individualized teaching and apprenticeship, but we have a long history of examination to select the qualified elite. In present, the pressure of college entrance exams and sparse educational resources caused many problems in school education. This situation caught Chinese educators and government's attention. MI theory became the theoretical support to government's educational policies. People one hand embrace the MI idea, on other hand question the realities of implementing MI practices. In this chapter, I address the efforts that the Multiple Intelligences Education Society of China (MIESC) has done outside the educational settings. Through seminars, magazine articles, radio programs and TV interviews, we try to influence teachers, parents, and policy makers, in order to bring the MI idea to the fields of family education, vocational education, and even the examination reform.

MI Theory in the Mainland of China

Zhilong Shen

MI Theory has been accepted and welcomed widely by the countless educators, teachers, administrators and supervisors of education, artists, even chemists in the mainland of China since Howard Gardner himself introduced it initially in 1985 because it happens to coincide with Chinese culture and ancient educational ideology, with the new steps of the reform and the popular principle of education—*Character Education*. It also gives the confidence to the parents who have only one child under the policy of birth control.

Under the guidance of the theory, Chinese have changed their perspectives of students, educational goal and policy, methods of teaching, learning and assessment in schools. Some art educators confirm the existence of existential intelligence and its connection with arts works.

They try to inspire students' crystallizing experience of existential intelligence through the appreciation of music in the education of aesthetics and mental health.

China's Assimilation of MI Theory in Education: Accent on the Family and Harmony

Jie-Qi Chen

The successful integration of MI theory in China's schools is seen at all grade levels and in all geographic areas. Political, cultural, and educational forces contributed to the theory's wide diffusion. Operating within China's cultural zone of proximal development, MI built on the momentum of Chinese educational reform and contributed to its advancement. MI implementation in China is not a direct transfer, but the result of a strong acculturation process. Specifically, the Chinese people conceptualize intelligence as an attribute of the family. Thus, MI practices in China involve the whole family. Committed to the value of harmony, Chinese MI educators seek to achieve balance among diverse teaching and learning components such as individual interests and group goals. The cultural assimilation process in China suggests new MI applications and deepens our understanding of the pivotal role played by culture as MI travels around the world.

The Application of MI Theory in Danish Education

Hans Henrik Knoop

Following a brief survey of Denmark's educational history, I share two cases of how the application of MI has played out in Danish Education. These cases highlight how MI has informed teaching, what opportunities have thereby been made available, and what problems have occurred. The first case regards a municipal comprehensive school where a group of very dedicated teachers have combined theory of multiple intelligences (Gardner, 1993, 1999) with theory of flow (Csikszentmihalyi, 1990). The second case is about a successful TV-program that was aired on national television for six consecutive weeks in spring 2007; as portrayed on the program individualized teaching created results that had been deemed impossible after eight years of reading failure in ordinary school

Multiple Intelligences in the Science Park, Danfoss Universe

By Charlotte Sahl-Madsen, CEO, Danfoss Universe, With Patricia Kyed, Danfoss Universe

(This abstract is incomplete due to formatting problems)

IS THERE A MORE IMPORTANT JOB THAN CONVERTING RESEARCH TO PRACTICE FOR THE BENEFIT OF ALL SCHOOL STUDENTS AND THEIR TEACHERS?

As an important element for strengthening the knowledge base for the activities at Danfoss Universe, a unique theme park in Southwest Denmark. Howard Gardner's theory of multiple intelligences has been employed. Gardner's ideas have been drawn on both in the facility design processes and in the shape of an entire exhibition, called the EXPLORAMA,

An English Translation? Multiple Intelligences in England

Anna Craft, Professor of Education

Education in England, at national and local policy levels, increasingly emphasises personalised learning for all young people. This chapter explores current approaches to ‘education futures’ in England and considers examples of how Howard Gardner’s Multiple Intelligences (MI) Theory has influenced teachers and schools seeking to widen participation in learning. Some difficulties inherent in associating MI theory with other approaches—such as learning styles, varied modalities and neuro-linguistic programming—are discussed. The chapter closes by exploring reasons why, despite challenges, MI may remain of interest to teachers in England for some time to come. To understand why classroom practitioners in England find MI theory useful, it is important to understand the significant changes that have occurred in educational policy and practice in the quarter of a century since MI theory was first published. Teachers and schools experienced a “squeeze” in the late 1980s and early 1990s to “teach to the test.” This squeeze gradually relaxed to the point where, by the mid 2000s, there are two parallel and interlocked agendas supporting teaching and learning: a culture focused on student and school performance measured by tests (often referred to as a ‘performative culture’) and a culture focused on creativity (e.g., Troman et al., 2007, Craft & Jeffrey, in press).

Does Every Child Matter in England?

Mike Fleetham, Educational Consultant and Trainer
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This chapter continues the themes described in Anna Craft’s chapter on English policy (this volume) with three reflections of MI-infused learning from my personal perspectives as educational consultant and father. I describe England’s Every Child Matters (ECM) educational strategy and ten-year Children’s Plan. I suggest there is a genuine political intention for every child in England to really matter, but the current educational assessment system makes some children matter more than others. An adoption of MI-inspired thinking and classroom practice is necessary to fully meet national aims. I present three examples. I showcase the work of an infant school teacher who uses MI puppets to enrich the concept of ‘intelligence’ for the very youngest learners. I detail my own work helping teachers develop their classroom practice. Finally, I describe my experience as a father of a son currently failing in school yet succeeding in the Scouting movement.

Multiple Intelligences in Ireland

Áine Hyland and Marian McCarthy

In Ireland, Howard Gardner’s theory of multiple intelligences was “the right theory in the right place at the right time.” In the past decade, Ireland’s population changed from being largely monolithic in terms of language, culture, ethnic background and religion, to being multi-cultural and diverse. New education laws in Ireland in the late 1990s required the education system at all levels to be inclusive and to facilitate and respect the diversity of learners in the system. Multiple intelligences theory provided an ideal framework for curriculum reform and delivery from early childhood to third level. This chapter describes how a research and development project on Multiple Intelligences, Curriculum and Assessment, which started in University College Cork in 1996, influenced a growing number of educational policy makers, teacher educators, educational leaders, school principals, teachers and students at all levels of the Irish educational system.

MI Perspectives from Japan

Naohiko Furuichi, David Howland, Keiko Ishiwata, Masao Kamijo

Though still relatively new in Japan, MI shows striking compatibility with traditional Japanese education models, particularly within the arts and the terakoya, community schools within local temples that provided the nation with universal public education until the opening of Japan in the Meiji Era (1868-1912), when they were replaced by Westernized systems. As Japan now begins to experience a rediscovery of those elements in its cognitive history that links it with MI, the need for MI implementation in education and industry is apparent, and in fact already beginning to have an impact on Japanese culture. This chapter traces Japan's journey from terakoya to technology and looks at ways in which MI has begun to play an important role as the country moves forward in reshaping ideas about thinking and learning.

The Integration of MI theory in South Korean Educational Practice

Myung-Hee Kim and Kyung-Hee Cha

This chapter describes how Korea adopted MI Theory into its education system and the theory's current influences in Korea. Korea's social, cultural and educational realities played a major role in why and how MI theory was embraced. The Korean society's desire to find an alternative to its monolithic education geared for university admission facilitated the acceptance of MI Theory. A bottom-up approach starting from the classroom, collaboration between researchers and practitioners, and early recognition by policy makers characterize Korea's adoption process. MI Theory has influenced education philosophy, teaching methods and assessment systems. It also has enhanced the quality of education in Korea and is part of the country's national education policy implementation through curriculum development. In addition, MI Theory has firmly established itself as an independent field of academic research in Korea.

Multiple Intelligences in Norway

Mia Keinänen

Education in Norway emphasizes values similar to MI; it promotes multimodal inquiry, strives for individually adjusted education and rejects narrow measures of students' performance. Indeed, from the late 1990s educators in Norway have used the MI theory in their practice and today there are at least 71 schools and kindergartens implementing the MI theory. In a country of four million people, this is surprisingly many.

In my chapter, I postulate three reasons for the current wave of MI inspired schools in Norway; 1) It is a tool for egalitarian education; 2) It compliments the core values of Norwegian education; 3) It is a tool for individual education. I also discuss the recent trend toward greater quantification in education in Norway. The poor performance by Norwegian students in the Programme for International Student Assessment (PISA) study has prompted a new school reform that may dilute MI inspired and other progressive education.

Multiple Intelligences Make a Difference

Mary Joy Canon-Abaquin

This chapter describes the vision, goal, and practices of the Multiple Intelligence International School (MI School) in the Philippines. Offering an alternative learning experience, the MI School was designed to develop students' diverse intelligences and to encourage students to use their intelligences to make a difference in the lives of others. Through our educational practices, the school advocates intelligence for all, reaching all students, teaching for understanding, and performance of understanding. Students in the MI School work together to develop 3 big C's—Capacity, Character, and Community. That is, students build their intellectual capacity and good character, expressing both in their willingness to contribute to the betterment of the community.

MI Theory and Day Care Center Reform in Tagbilaran City

Carissa Gatmaitan-Bernardo

This chapter describes a collaborative effort between the Multiple Intelligences International School and Tagbilaran City, Bohol to stimulate day care center reform in the city. Six aspects of this concerted effort are described. These aspects are reality assessment, professional development, learning environment building, curricular change, community involvement, and finally, local leadership development. Challenges and creative solutions are presented to illustrate the process of the reform effort and its impact on teachers, children, families, and the community at large.

Curriculum Reframed: MI and New Routes to Teaching and Learning in Romanian Universities

Florence Mihaela Singer and Ligia Sarivan

The story of multiple intelligences theory (MI) in Romania started on the shattered foundations of a school system overwhelmingly burdened by its communist heritage. The uniform schools could not adopt the individualized approach MI called for, yet they were attracted by the radical innovation and hastily turned MI into glamorous fashion. In our attempt to promote learning beyond the facts, we have seen MI as a good inspiration to restructure the teacher training curriculum. We thus promote a teacher training program that encourages students to identify their clichés, provides contexts for students to structure and restructure domain-related and teaching competencies, and challenges students to transfer their knowledge into similar sessions for their own students. For methodological purposes, we structured a multirepresentational model that supports deep understanding and metacognition. The model uses a transfer frame in which a concept turns into a procedure to promote learning another concept via various contexts.

The Contribution of MI to the Creation of a Culture of Ideas in Scottish Education

BRIAN BOYD

Scotland has a long and proud educational tradition. This chapter focuses on the growth of more inclusive models of education in Scotland over the last 100 years through the lenses of family history and national policy. The chapter describes policy changes that have reduced the role of

intelligence testing and traditional conceptions of intelligence on access to secondary school, even as streaming or tracking within schools can still be problematic.

In 2004, the author participated in a Ministerial Review Group that argued that curriculum should enable young people to become successful learners, confident individuals, effective contributors and responsible citizens. The use of Gardner's theory is consistent with these aims. In 2007, the author conducted a survey of the theory's use. The data from the survey gives an indication of the extent to which MI has impacted on teachers' professional practice. The data is presented in the form of case studies and in the words of the teachers themselves.

MULTIPLE INTELLIGENCES PRACTICES IN TURKEY

Osman Nafiz Kaya and Ziya Selçuk

After the Turkish Republic was established by Atatürk in 1923, many radical revolutions, including within the Turkish Education System, were made in order for Turkey to reach the level of contemporary civilizations. However, as an extension of traditional intelligence theories, the Turkish Education System has been founded on mathematical and verbal grounds. In the last two decades, multiple intelligences (MI) theory has been an important instrument for discussions to improve all learners' cognitive, affective, and behavioral development. The first studies about MI theory were made after the second half of the 1990s. First, we present the initial efforts of MI theory as an organizing principle for several private schools. Second, we share how multiple intelligences-oriented methods courses for pre-service teachers in education faculties were structured. Third, we focus on the impact of MI theory on the new education reform developed by the Turkish Ministry of National Education in 2005.

What If They Learn Differently?

Inteligencias Múltiples ¡Despierte el Potencial de Aprendizaje!

René Díaz-Lefebvre

Latinos are the United States' largest minority group, numbering 47 million (about 15.5% of the total U.S. population). Young Latino undergraduates are half as likely as their white peers on campus to finish a bachelor's degree. Many Latino students thought to be "lazy" or "underprepared" may be frustrated because they crave instruction not based on linguistic and logical-mathematical intelligences. Glendale Community College implemented an imaginative approach, Multiple Intelligences/Learning for Understanding (MI/LfU). Including cultural values (*familismo, respecto, simpatia, biculturalism*) proved to be a pivotal and integral component in the effectiveness of the approach that empowers Latino/a students to believe *Sí Soy Inteligente* (I Am Intelligent).

When Cultures Connect: MI Theory as a Successful American Export to Other Countries

Thomas Armstrong, Ph.D.

This chapter describes contacts between the theory of multiple intelligences (MI theory) and three different cultural contexts: the teaching of a high school lesson plan based on MI theory in a suburb of Beijing, China, the Norwegian practice of nature education in an *utskole* (outdoor school) and its relationship to the naturalist intelligence, and the paradox of a pluralistic theory

(MI) being adopted by monistic western religious traditions. In each case, the cultural contact is a favorable one, and reasons are explored as to why the theory of multiple intelligences has been so successful in integrating its Western cultural bias with the values and beliefs of other cultures. The fact that MI theory has as part of its core structure a deep-seated appreciation for the manifestations of intelligences in cultures around the world is seen as a primary reason for its success as an American export to other shores.

MI Around the World: The New City School Story **Thomas R. Hoerr**

MI theory was conceived as a way to look at human potential, not as a curriculum or framework for school design. While MI resonates with educators who seek new and varied ways for students to learn, there has been no roadmap for implementing MI on a school-wide basis. The experiences at New City School show one way that this can be done.

For 20 years the faculty of the New City School has grappled with how MI can be used to increase student learning. The exploration that began as a faculty reading group has resulted in MI becoming an integral aspect of the school's culture. Today, MI frames pedagogy and assessment, informs dialogue among and between educators and parents, and has had a positive impact on faculty collegiality. The school esteems, in particular, the personal intelligences

The World's First Multiple Intelligences School: The Story of the Key Learning Community **Chris Kunkel**

In 1987, a small urban US public school forever changed the face of education. A few years earlier, in 1983, a report on the failings of education in the US called "A Nation at Risk," was published, and government officials soon began enforcing strict guidelines. They hoped these "New Basics" would improve achievement and create "A Learning Society." A group of 8 public school teachers in Indianapolis saw this oppressive test-prep curriculum coming, and began researching alternatives. After reading Harvard psychologist Howard Gardner's Frames of Mind, they found their answer. By developing theme-based and project-focused methodology within a Multiple Intelligences Curriculum, these teachers began a worldwide movement that revolutionized and changed education. At the Key Learning Community, teachers and students work to identify students' strengths to cultivate learning. Through project work and authentic assessment, students develop real-world competencies and the leadership capacities needed to succeed in today's world

Problem Solving and the DISCOVER Project: Lessons from the Dine' (Navajo) People C. June Maker, Ph.D., The University of Arizona, USA Ketty Sarouphim, Ph.D., Lebanese American University, Lebanon

In this chapter, we focus on the importance of problem solving as the defining construct of intelligence. We show how Howard Gardner's definition of intelligence influenced our approach to examining problem solving abilities in a project named DISCOVER. We further illustrate the value of observation in developing an understanding of the abilities of children, especially

children in remote areas of the land of the Dine' people in Northern Arizona. We believe these experiences can be helpful for others interested in cultural and geographical influences on the use of multiple intelligences.

The Howard Gardner School for Discovery

Vincent Rizzo, Director
Scranton, PA, US

The Howard Gardner School for Discovery (HGSD) has adopted Multiple Intelligence Theory as a founding principle. As a laboratory school, HGSD chooses to focus on practice. MI's impact on how and what we teach is integral to our program. In this chapter, I explain what the theory looks like in practice and how students in a school are advantaged by its use. Specifically, I address our attempt to incorporate MI seamlessly into our work. The school's staff adopted an apprenticeship model that helps us clarify our own theoretical bases for curriculum writing, project-based learning, authentic assessment, and use of more traditional measurements of student achievement. Finally, I demonstrate the practicality of MI-inspired practice for all schools as well as its potential for whole-school reform.

The Challenges of Assessing the Multiple Intelligences Around the World

C. Branton Shearer

Since MI theory was introduced, educators around the world have desired an assessment that they could use to better understand students' MI profiles and to inform classroom instruction. The complex nature of each intelligence makes the creation of a valid, reliable and practical assessment a great challenge. This chapter describes the various ways that people have approached this task and the barriers that differing cultural contexts have presented along the way. To better understand the difficulties of MI assessment in various cultures, surveys were emailed to educators and researchers in 22 different countries. Three general types of barriers were identified: cultural bias against some of the intelligences; philosophical views of education that may be less congruent with MI, and cultural variation with regard to focusing on individuals' strengths. Despite such challenges, the author argues that MI assessment can be a useful tool for understanding students' strengths and for validating the theory itself.

Why MI?

Seana Moran

Intelligences are often thought about as an individual property. However, they are less a property or end in themselves and more a tool to achieve cultural goals. This chapter examines what individuals do to affect their cultural environments: how interactions of intelligences end in contributions that benefit the culture. Each of us offers a profile of intelligences that interact with a) each other within one person's mind, b) intelligence profiles of other individuals with whom the person works and plays, and c) cultural, cross-cultural, and technological resources employed for various purposes. These interactions create further opportunities for us to make contributions to the common good and to expand our own and others' horizons for accomplishing positive community aims. As more than just logical-mathematical and linguistic intelligences are valued

and developed in various cultures, the array of potentials, capabilities, and performances grows multiplicatively.

What's Policy Got to Do with It? MI in Social and Political Perspective

Mindy L. Kornhaber

This chapter focuses on the intersection of MI and social policy and politics. Drawing on many of this volume's chapters, it considers the development of the theory and its use in schools in response to existing policies, and, occasionally, as a policy tool itself. The central theme in both cases is that the theory's adoption is intended to enfranchise a much wider array of students. To the extent that various implementations succeed in doing this, MI is an agent of cognitive equity (Kornhaber, 1998): It enables a greater diversity of learners to use their minds well. In turn, it is a democratizing tool: one that facilitates the creation of ideas and actions by those who might otherwise remain silent or passive within their communities or in the wider society.