A Multi-Dimensional Curriculum (MDC) for Pre-School and Elementary School

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ABSTRACT   The Multi - Dimensional Curriculum (MDC) is built on three major dimensions covering the intellectual development of the child. These dimensions have been named typical projects in a child's live, activities which are interesting to children and cross-curricular issues. It is insufficient to relate teaching to one or two of these dimensions. The curriculum should encompass all aspects and embrace a holistic approach. Any cube within the MDC matrix is compiled from all three dimensions and together with other cubes produces a "foundation for human civilization." The model is an attempt to build on general insights into the artistic, scientific, and technological literacy and the hermeneutics of children's living. Where does scientific and artistic realization happen? The basis of a child's art and science is formed by creativity, by making the knowledge and obtaining the skills and hermeneutics of living, of course, with its active presence. The creative and searching character is assimilated through an interaction process and by establishing a communication with the environment and its elements.

KEY WORDS: Multi-dimensional curriculum, holistic development, holistic learning

Introduction

Imagine a child's face while hearing a bird singing and the breeze blowing in a beautiful plain and in a tranquil and rhythmic manner turning, twisting and dancing in harmony with nature, and joining the plain and its aesthetic beauty. When children are exposed to objects and events surrounding them, their natural curiosity, along with their spontaneous tendency to explore, provide the necessary basis for the gradual formation of concepts and their interrelationships. Among these are the concepts of "world" and "self." These concepts give the opportunity for the child's positive interaction with reality in its totality.

Throughout history, the social development of humans has been affected not only by their curiosity and dynamism, but also by conditions imposed on them by their educational system. In a bygone era, the task of teaching hunting skills, along with the responsibility of rearing children, was the responsibility of parents. But as societies expanded, science and technology developed, and labour was divided, education also found its special status and practitioners.

With the expansion of science and technology and their role in all aspects of human daily life, multi-disciplinary and interdisciplinary studies became necessary. Issues such as the interaction between science, life and the universe became challenges to be faced by the newly established science of curriculum planning. Today educational systems are responsible for developing literate citizens by requiring students to study and take advantage of their learning in order to participate in

social activities and responsibilities. In such conditions, the learner is faced with a complex combination of both social and natural sciences, requiring him/her to acquire not only the basic literacy skills of reading and writing, but also the basis of artistic and scientific literacy. Holbrook, (1998) introduced the idea of operationall sing scientific and technological literacy by focussing on "developing the ability to creatively utilizing sound science knowledge (and ways of working) in everyday life to solve problems, make decisions and hence improvement the quality of life." (As cited in Holbrook and Rannikmae, 2001). For this situation, what should be the characteristics of curriculum development in order to help the learners deal with the complex world in which they live? To move in this direction, those responsible for development of curricula and materials need to address the following questions:

1. Is the present curriculum capable of providing children with the basic knowledge and skills in science in such a way that they could use science in their lives, both in the present and in the future?

2. Is the memorizing of information enough for the preparation of children as preparation for the responsibilities involved during the 21st century?

3. Is it enough to just add a few skills to this body of memorized information?

4. Does the child in a society such as in our country have the same status as the child in more advanced societies of the 21st century?

5. Why do so many of the educational goals and ideals, filtered through many levels of educational planning, loose their lustre when it comes to implementation and do not become a part of a child's learning?

6. How necessary is it to begin the education curriculum from early childhood?

Holistic Learning and the Foundations of Human Civilization

As Piaget indicated (as cited in Gimsberg & Oppers, translated by Haghighi, 1991), human characteristics such as curiosity, dynamism and perseverance are the essence of human achievements. Human achievements, in such diverse realms as the arts, the sciences and society (civilization) are the results of positive human interactions within these realms. Therefore, it would be logical to consider having such interactions in the preparation of a child's development, so that the child is familiarized with the "foundations of human civilization." Unfortunately, current educational systems can, at best, provide opportunities for the child to learn every detail of society in individual branches of the arts and sciences, but what is not addressed in this system is the formation of a basis for the child's positive interaction with reality in its totality.

Today's child is faced with a society in which the developing science and technology is complex. It, therefore, seems necessary to create suitable conditions for the child's development; so that he/she will comprehend the challenges met by humans in achieving the current status of the arts and the sciences, and also society, so as to be able to appreciate the possibility of a positive impact due to

his/her presence. Such an empowerment needs to be established in all aspects of a child's character, so as to inspire their active interaction with the environment and as yet, unidentified developments and forms of expression. This was true for yesterday's child and is equally true today.

For instance, a child's early effort to understand the concept of number is similar to the early use of numbers by primitive humans. The beginning of speech by a child is similar to the initial process of language development by primitive humans. Every association and interaction of the child with his surrounding follows the same patterns that active and inquisitive humans have utilized throughout history.

It is essential to appreciate early efforts by a child in its interaction with the "foundations of civilization" (a whole arising from elements), and to organize it as learning the language, mathematics, etc. In other words, educational planning should encompass an understanding of the fundamentals of human encounters with new phenomena as experienced throughout history, and also an appreciation of the very essence of the formation of human civilization. This is attainable by a plan based on a holistic philosophy of learning that considers the development of the whole character of the child. Such a plan needs to define the major characteristics of human civilization and the development of a child's character as a whole. The plan tries to facilitate an interaction between these characteristics and the child's character development in the fields of art and science, so as to establish a basis for their future role in the stage of society, as it then will exist. The philosophy of Haidegger's hermeneutic has been focused on pre-attitude "vorsicht" for constructing general insights (Ahmadi, 2000), and MDC is an attempt to construct general insights according to a holistic philosophy of learning and hermeneutics of children's living into developing artistic, scientific and technological literacy and hermeneutics of children/s living (foundations of human civilization).

MDC Model

If we are to consider the total character development of the child (plus its interactions with the major characteristics of human civilization) and help this process through creating a curriculum, a holistic approach to planning is a must. In the Multi-dimensional curriculum approach, multiple intelligences of a child's development are included as part of the plan. Interactions among these components with the arts and the sciences (social and experimental) are the base of a how child understands life and civilization (the so-called alphabet of civilization). The argument put forward for the origin of realms in the curriculum is founded on the following propositions.

1. The first proposition is that children learn through activity (artistic and scientific) - for instance story telling, role-playing and theatre, festivities, playing music, paint and crafts, field trips etc. We can accept these activities as a style of teaching and learning for children. Approaches of teaching and learning influencing MDC were constructivist approaches, which emerged from the work of psychologists and educators, such as Bruner, Piaget, Vygotsky (as cited in Bazargan, 2004). The form of teaching and learning may involve various learning styles, may vary from child to child and even vary for a given child on different topics. So, recognising this, one realm is

labelled as "activities which are interesting to children."

2. The second proposition is that early-childhood education must incorporate a component involving the child's self-initiated activities and learning. Children achieve self-initiated learning from active interaction with the environment, and their environment is full of projects for them. Every association and interaction of the child with his/her surroundings follows the same pattern that active and inquisitive humans have utilized throughout history. This pattern includes the gaining of knowledge, skills and attitudes for living. It is essential to appreciate the development of such similar efforts by children with the foundation /base of art, science and technology in separation arising from interaction among the elements in their life (literacy civilization). It is important that a curriculum with a holistic approach pays attention to the child's active interaction with the environment by involving them in projects which are interesting for children, so another realm is "typical projects in a child's life."

3. The third proposition is that children will achieve skills, attitudes and concepts, which are basic, simple and primitive from projects involving active interaction with the environment. All activities which a child undertakes involve understanding. "How can we see ourselves" is the understanding of the foundation/base of art, science and technology in separation, while arising from interaction between these elements, such as the "Mirror project" in which some of the cross-curricular issues, such as problem solving, aesthetic awareness and making predictions, occur. It is one of the ways of understanding and applying foundation/basic skills, attitudes and knowledge of art and science (literacy and civilization). So the third realm should be skills and attitudes.

4. The fourth proposition is that many factors impact on the early-childhood learning environment. These include, among other factors,

   • the basis of subject matter being taught at elementary school,
   • the knowledge, skills, attitudes and patterns of behaviour being learned, as explained in educational standards (Project 2061),
   • children's self-skills, plus activities and knowledge, which they will gain in the process of their activities in their everyday life.

Some skills and attitudes are common to different subject matter, as well as in different projects of children's everyday life. In certain circumstances, how something is learned is more important than what is learned, and hence the context can play an important role. With this in mind, the previous realm of knowledge and skills needs to be expanded to encompass cross-curricular issues (skills, themes, and attitudes), which cover the vast amount of human competences (personal and social qualities). Sometimes this is called the "hidden curriculum" as it is rarely indicated in a content-driven curriculum approach. Summarizing, Figure 1 indicates three curriculum realms as:

• Typical projects in child's life

• Activities which are interesting for children

• Cross-curricular issues, which will be obtained through the child's activities and projects in living.
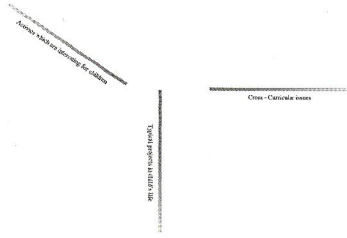
Figure 1: Three realms for pre-school and elementary education

Figure 2, shows the dimensions and the details in each dimension. (How and why these details are selected will be explained in the text)
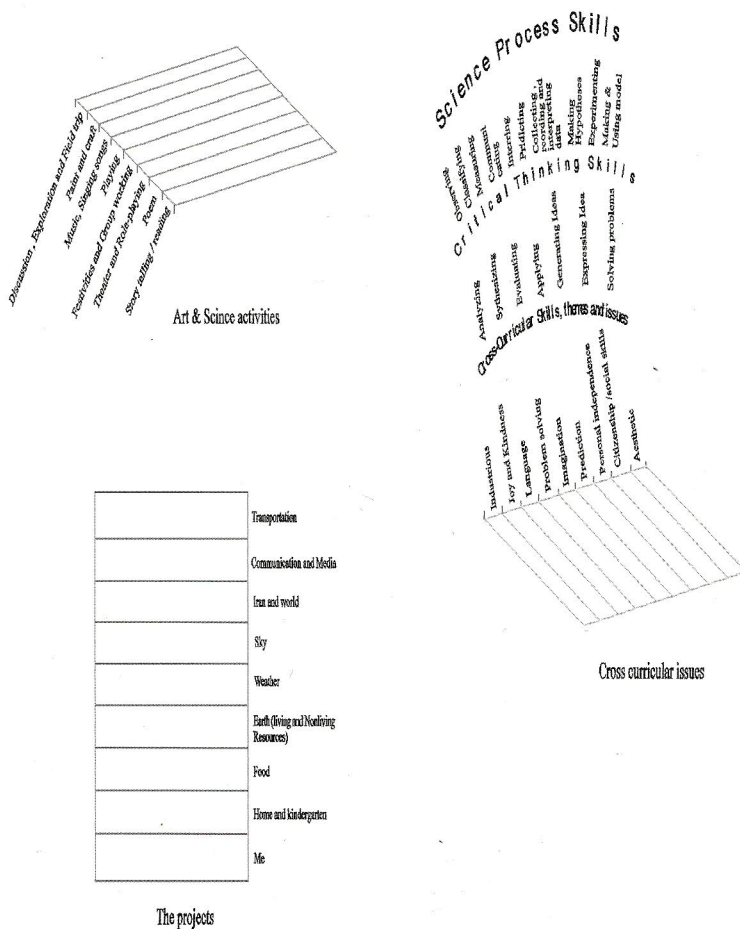

Figure 2: Three dimensions

Every realm is seen as important for the development of curricula, even though previous curricula have tended to focus on only one or two of them. Not only are the realms important, but the MDC also focuses on interaction among the three

realms. It illustrates that these three dimensions, in interactions between each other, can create a model of a rectangular cube.

This cube shows the possibility for exploration, seeking, control creating and programming based on the three realms. In the operationalisation of the multi-dimensional model, 9 projects were identified by curriculum planners as suitable for pre-school elementary school children. Also, 9 interdisciplinary themes, skills and attitudes were identified, which include some cross-curricular themes and skills for artistic and scientific literacy, and 8 activities were developed and are situated along the three dimensions of a rectangular cube. This resulted in 648 cells (Figure 3). Each cell has the same three dimensions; - project, theme and activity (see Figure 4).

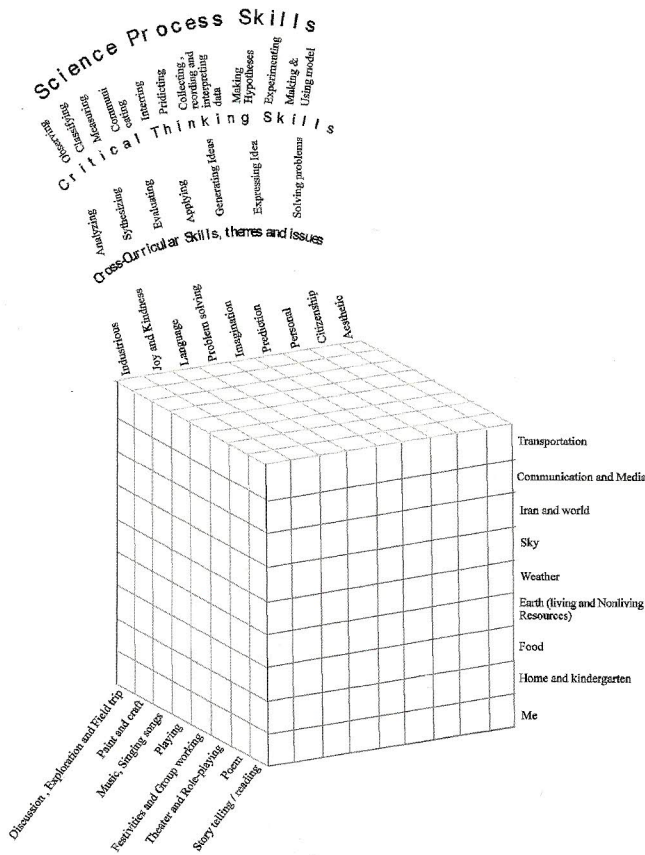*Figure 3: The multi demensional curriculm MDC model.*

Figure 4 actually shows two cubes. The first cube depicts the 3 realms as - Earth, aesthetic, and story telling. The second cube shows the 3 realms as - Earth, aesthetic, music/singing songs. As Figures 5 and 6 indicate, the learning from a consideration of any of the themes across the other two dimensions would allow this to be represented by a thematic layer.
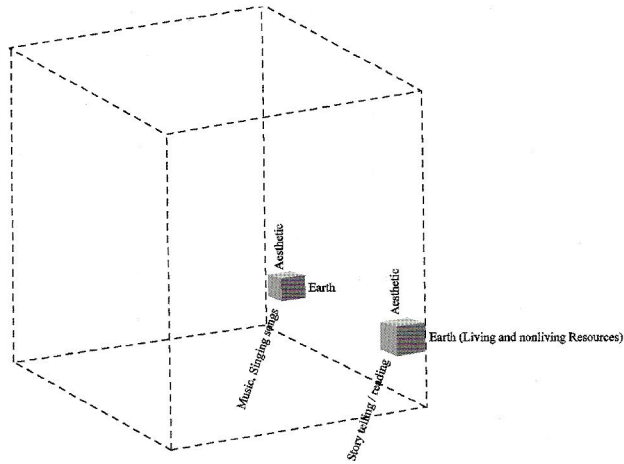
Figure 4: Two cells inside the MDC. The Earth-music/aesthetic, The Earth-story telling/aesthetic

Similarly, we can create an activity layer (slice) model. As Figures 7 and 8 indicate, the consideration of any projects across the other two dimensions would be presented in the blocks of MDC.
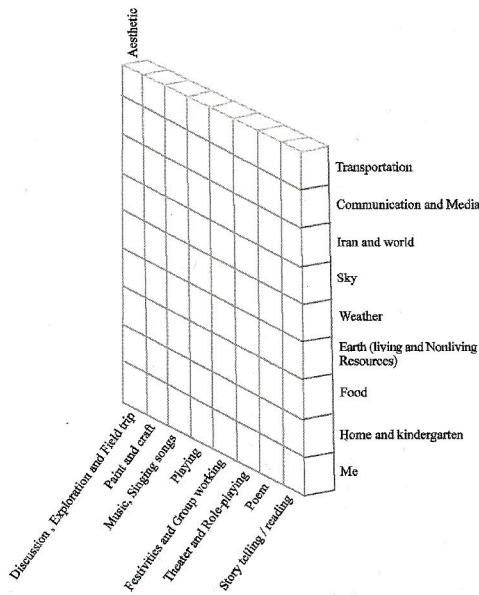
Figure 5: The "aesthetic" channel in the cross-curricular dimension
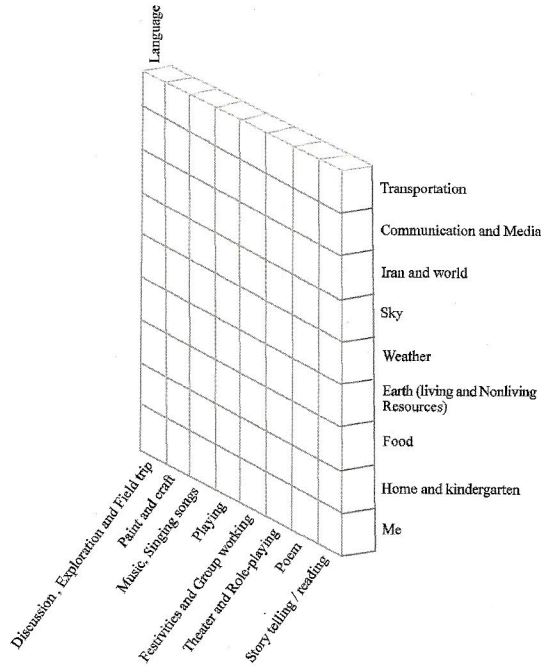
Figure 6: The "language" channel in the cross-curricular dimension
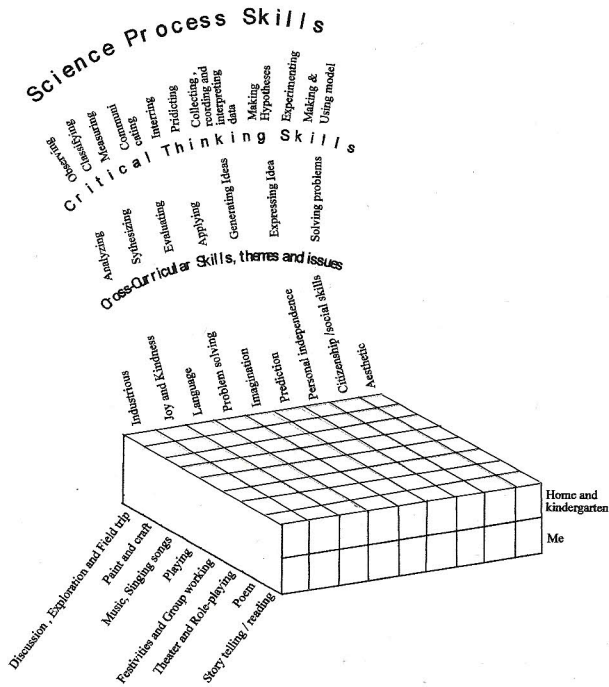
Figure 7: A "humanities" block-integrating me & us and home and kindergarten in the projects dimension
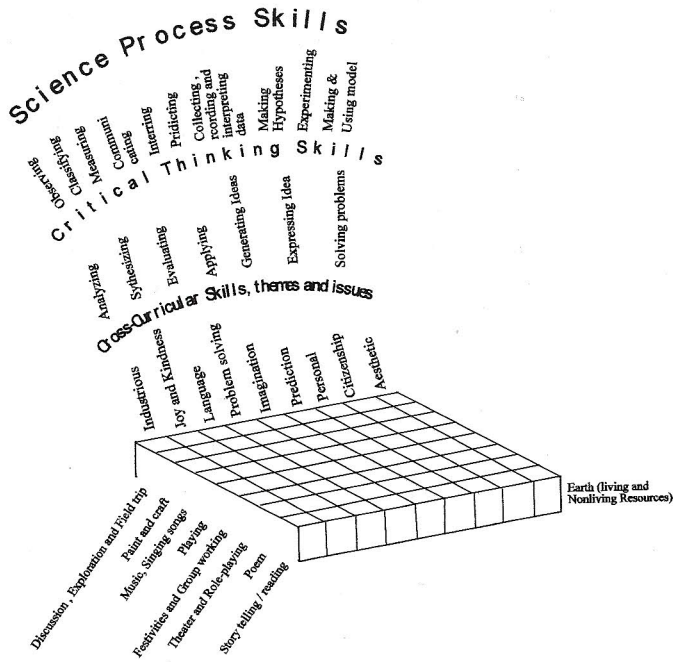
Figure 8: The earth block

The Project Dimensions

As shown in Figure 9, the project dimension in the MDC model includes the following major projects:

	Transportation
	Communication and Media
	Iran and world
	Sky
	Weather
	Earth (living and Nonliving Resources)
	Food
	Home and kindergarten
	Me

Figure 9: The projects dimension

Me (self), Home and kindergarten, Food, Earth, Weather, Sky, Communication and media, Iran and the world, and Transportation.

These were carefully selected based on many criteria. Some criteria have been influenced by previous work on the project approach (Dewey, 1897; Harris, 1998; Katz & Chards 1999). The following are some of criteria:

- Designed to be within the children's environment and hence providing a better understanding of the world in which they live;
- Explored outside kindergarten, or elementary school, in such a way that parental participation in education is possible;
- Expressible via different media and permitting child activities within the realm of most children's experiences;
- Encouraging inquiries;
- Divisible into sub-domains; and
- Capable of relating both to the local and national culture.

The sub-domains utilized for each project have most of the characteristics outlined for the projects. The sub-domain criteria for identifying a project can be extended as illustrated in the following example: As an example Figure 8, indicates the Earth block/project component of the MDC and Figure 10 indicates sub-
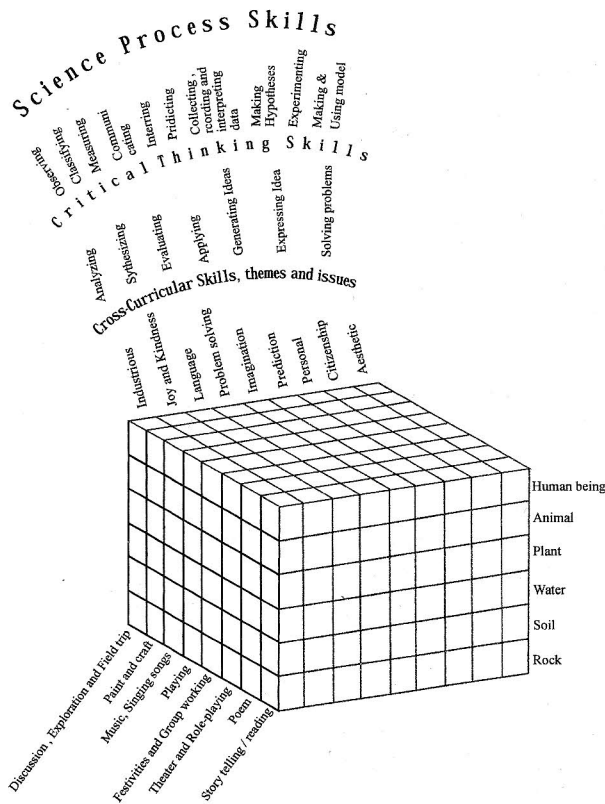

Figure 10: The earth & connected blocks

domains for the Earth project, as Rocks on the Earth, Soil on the Earth, Water on the Earth, Plant on the Earth, Animal on the Earth and the last project/block as Human on the Earth and Earth Festival.
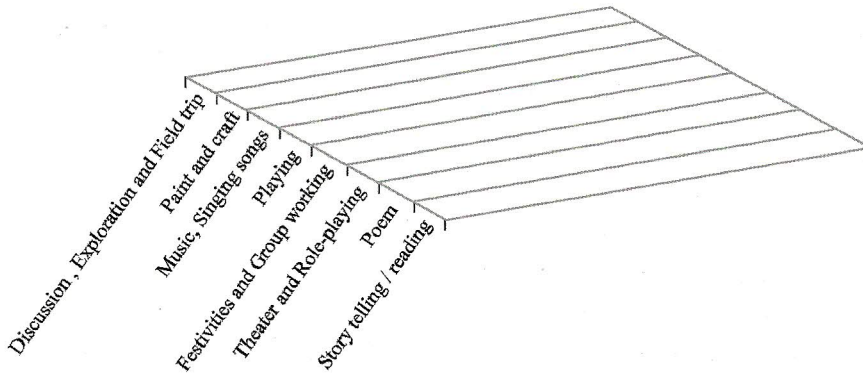
The Activities Dimension

Figure 11: The Art and Science activities dimension

As shown in Figure 11, the activities dimension emphasizes the pivotal role of activities as a means of learning. It is believed that the child learns through activity (Dewey, 1938). MDC emphasizes both activities (artistic and scientific).

The activities selected for inclusion in the model are all interconnected with the chosen projects and the cross-curricular skills, schemes and issues.

These include: Story telling and reading, Role-playing & Theatre, Festivities, and Group working, Playing, Music and singing songs, Paint & Craft, Exploration, Discussion and Fieldtrips.

This dimension is deemed as the "children's language" for presenting themselves. Whereas the art conventionally is an integral part of kindergarten programs from the primary grades and beyond with schools becoming more and more text-book driven and drill practice oriented. (Charlsworth, 1998). One of the best examples about the role of art at kindergarten is Reggio Emilia schools. (ERIC; Roopnarine & Johnson, 2000; Gordon & Browne, 2000). Gordon and Browne (2000) have explained the philosophies and practices of Reggio Emilia schools where children are actively engaged in projects that they initiate, design and carry out with the support of teacher. Art is primary medium for learning. The child who shows great interest in a dramatic play is offered a time to put on a puppet show for the class. The child whose mind works particularly musically, or logically, or interpersonally is encouraged to develop these special gifts. The elements of artistic and scientific dimension chosen are thus often selected by the child and observation of their interesting activities by adults. According to research in cognition documents (Gardner, 1993), children possess different kinds of minds and therefore understand, learn, remember, and perform in different ways. Multiple intelligences theory (as cited Gordon & Browne, 2000)) acknowledges that a child learns

and uses knowledge in different ways. The interactions which are encouraged among the three dimension in MDC (Bazargan, 2004) provides opportunities for encouraging musical intelligence, bodily-kinaesthetic intelligence, logical-mathematical intelligence, linguistic intelligence, spatial intelligence, naturalist intelligence and interpersonal intelligence (Gardner, 1993).

Cross-Curricular Dimension
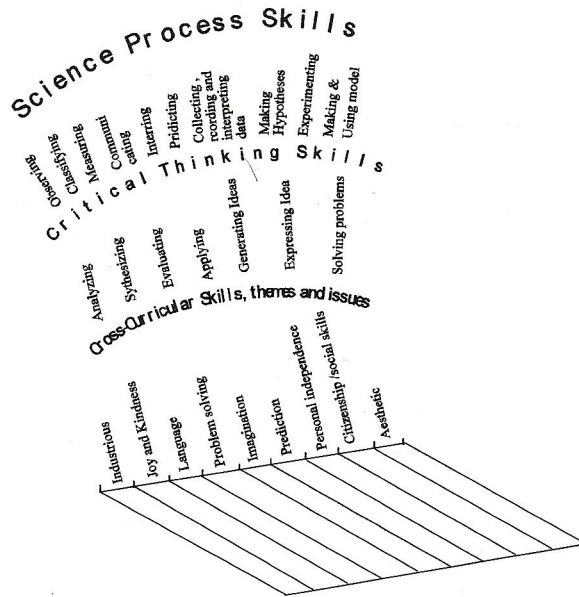
Figure 12: The Cross curricular issues dimension that influence child's general development

As shown in Figure 12, the cross-curricular dimension of the MDC includes preliminary concepts, common to all projects, and provides opportunities for focusing on other aspects of a child's personality. If imagination and the understanding of people and their thoughts are ignored in concepts such as social communication, the development of the child will be incomplete and hence questionable. And thus concepts such as Aesthetics, Citizenship, and Individual independence are usually among the goals and ideals of the curriculum planners. But, unfortunately, teachers rarely address them. Some cross-curricular skills, themes and issues have been used before for elementary school (Wragg, 1997; Siraj, 1998), but the uniqueness here is the 23 issues used to identify axes. The Multi-Dimensional Model, however, provides the practical grounds for the realization of these aspects. Also the cross curricular model includes the skills for scientific and artistic literacy (as the basis for cross-curricular skills, themes and issues), which are the science process skills and the critical thinking skills; observing, classifying, measuring, communicating, inferring, predicting, collecting, recording and interpreting data, making hypotheses, experimenting, making and using models, analysing, synthesising, evaluating, applying, generating ideas, expressing ideas, solving problems, imagination, language, joy and kindness, and being industrious.

Table 1 indicates the half spread of one of the blocks (Earth) of MDC (Figure 8). It explains the cross-curricular dimension across the other two dimensions... In this table, every spot ( ) indicates that there is/are suggested definite activity/activities in the Earth project (or in a sub-project of the Earth project, such as Rocks/

Table 1
Cross-Curricular Skills, themes & Issues for Scientific, Artistic & technological Literacy

	Process	Description	project A	project B	project C	project D	project E	project F	project G	project H
Cross – Curricular Skills, schemes & Issues	Observing	Determining the properties of an object or event by using the senses	•	•	•	•	•	•	•	•
	Classifying	Grouping Objects or events according to their properties			•			•		•
	Measuring	Skills include: describing quantitatively data, space or time relationship, estimating			•	•				
	Communicating	Using written and spoken words, graphs, tables, diagrams, and other information presentations, including those that are technology based	•	•	•	•	•	•	•	•
	Inferring	Drawing a conclusion about a specific event based on observation and data; may include cause -and- effect relationships				•		•		
	Predicting	Anticipating Consequences of a new or changed situation using past experience and observation					•		•	•
	Collecting, Recording and interpreting data	Manipulating data, either collected by self or by others, in order to make meaningful information and then finding patterns in that information that lead to making inferences, predictions, and hypotheses					•	•		
	Making hypotheses	Proposing an explanation based on observations						•		
	Experimenting	Investigating, manipulating materials, and testing hypotheses to determine a result			•		•	•		
	Making and using model	Representing the "real world" using a physical or mental model in order to understand the larger process or phenomenon.	•	•	•	•	•	•	•	•
	Analyzing	Studying something to identify constituent element or relationships among elements			•			•	•	
	Synthesizing	Using deductive reasoning to pull together key elements				•	•			
	Evaluating	Reviewing and responding critically to materials, procedures, or ideas and judging them by purposes, standards, or other criteria	•	•	•	•	•	•	•	•
	Applying	Using ideas, processes, or skills in new situations	•							•
	Generating Ideas	Expressing thoughts that reveal originality, speculation, imagination, a personal perspectives, flexibility in thinking, invention, or creativity					•		•	•
	Expressing Ideas	Presenting ideas clearly and in logical order, while using language that is appropriate for the audience and occasion		•	•					•
	Solving Problem	Using critical thinking processes to find solutions to a problem			•	•				•
	Aesthetic	To recognize, enjoy and awareness of the qualities of beauty and beautiful things		•	•	•	•	•	•	•
	Citizenship/Social	Pooling and sharing virtues that social development takes place and the whole group benefits					•			•
	Joy and Kindness	Keeping and open mind, develop adaptive routines and flourish, enjoying harmonious membership of a team			•		•		•	•
	Industrious	Doing her/his best in witch is interested		•		•				•
	Personal	Acquiring independence of mind and develop personal characteristic, explore own values, belief and behavior						•	•	•

Soil/water/Plant/ Animal/Human on the Earth and the Earth festival), which relate to definite cross- curricular skills/theme/issues.

This is clearly shown in the "Poster Book" of children's activities in the Mathematics Centre. The children, in groups of 3 or 4, collect small stones from nature as shown in the activity "the kinds of small stones" on the left side of the Mathematics Centre: The children make a record of the small stones according to shape/colour/size on the table by marking (+/-) under the appropriate column.

Then they study their table, noting the numbers of each characteristic (size/shape/ colour) of stones and mark the group of stones which possesses the most/least of a characteristic. This is also the explanation of the spot in (Table 1) concerning **Project C** in the connecting of the **collecting, recording and interpreting data**. This activity can also be carried out using buttons/beads, etc).

Figure: Children's Poster Book

In other words, Table 1 is a representation of MDC for the Artistic, Scientific and Technological literacy for Children on an Earth project. Similarly we can have a table for every block and for the whole of the MDC.

Outcomes: Putting MDC into Practice

The first educational package in Iran is a product of MDC. It provides a systematic and flexible basis for predicting, designing, applying and the evaluation of the learning and project activities of children. All educational packages, planned as products of the MDC, will comprise audio/visual materials including poster books, picture cards, video tapes, audio tapes, supporting books (theoretical principles of the program in every branch of art and science), teacher's resource book, art and science book, and a teacher's guidebook. The guidebook explains the application of the materials, pertaining to the multi-dimensional programming views for education and the continuous evaluation of the level of knowledge, skills and attitudes of the child.

A variety of reading and audio-visual materials are produced for the children, teacher and parents. They provide a suitable support for systematic education and project work for children by organizing their present level of art and science and their creative thinking. It is intended that the links between arts and science, in the context of children learning, will be strengthened and that this approach lead to more attention, from adults, to such a link. The production of new materials and the utilization of previous materials for children will be based on the multi-dimensional curriculum; hermeneutic and constructive approach. In other words, the production and innovation of learning materials will follow a dynamic process so that:

- The child will acquire a new understanding of the foundations of art and science (alphabets of civilization) through experiencing his/her capabilities and capacities.
- Attention will be addressed to the totality of the interaction of arts and science, and the valuable human characteristics, which are the basis of human civilization.
- The development of a child's scientific vision and skills will be included.
- A clear and personalized basis will be identified for the evaluation of the child's learning, and for the education designed for children.
- Integrated learning, according to MDC, provides multiple representations of reality. Multiple representations avoid oversimplification and represent the complexity of the real world.

A constructivist-learning environment, according to MDC, emphasizes knowledge construction instead of knowledge reproduction and on the authentic tasks in a meaningful context rather than abstract instruction:

MDC thus:

- Provides a learning environment such as a real-world setting or case-based learning alongside modular instruction. It encourages thoughtful reflection on experiences.
- Provides a context- and content-dependent knowledge construction. It is

based on collaborative construction of knowledge through social negotiation, not competition among learners for recognition.

- Enables children to understand the position of science among other disciplines, understand the interaction between the arts, science, literature and the society.
- Cultivates and reinforces life-long learning in which children develop and retain the need to know, and have acquired the skills to ask and answer appropriate questions.
- Provides a challenge to old thinking by providing modern ideas that will help the formation of lasting materials for children.

In the dynamic and interactive process of producing materials for children, a specialized work force will be created that is capable of perpetuating this process. The process includes numerous opportunities for research, especially in the areas of education such of language skills, communicating, etc. The allocation of opportunities for documenting the individual experience of the teachers, with respect to the presented work, will stimulate the debate and review of the work of others.

The output of a suitable interaction between the realms of art and science in every society and the needs of this age category will serve as a platform for understanding between the realm of education and personal and social development as a whole. The effectiveness of the components influencing the child's education and their mutual interaction will be suitably used in the education of children and allowing more attention to be given to the development of the child's whole character. Development of the child's whole character will affect all components (Figure 13):

- A stronger presence and self-expression will be developed in the child.
- In the dynamic and interactive process of producing materials for children, a specialized work force will be created that is capable of perpetuating this process.
- The process includes numerous opportunities for research, especially in the areas of education such of language skills, communicating, etc. The allocation of opportunities for documenting the individual experience of the teachers, with respect to the presented work, will stimulate the debate and review of the work of others.
- Identifying the cross-role of child's education (formal and informal) in multidimensional development from personal to international arenas.

Investigating and writing about education and development began in the 1970s (as cited in Daun, O'Dowed, & Zhao, 1995). According to their first arguments between Fagerlind and Saha, "development is not a simple process, but is embraces a range of dimensions in society." In the 1983 edition of *Education and National Development*, they specified three very important dimensions of development, namely economic, social-cultural, and political. Saha in the paper of Two Decades of Education and Development: Some Reflection (as cited in Daun, O'Dowed & Zhao, 1995) has focused on a few of the arenas which have been neglected in the education and development literature: adult education in a development context; women education and development; higher education in a development context. Holger Daun, in the last chapter of this book, summarizes trends in international,
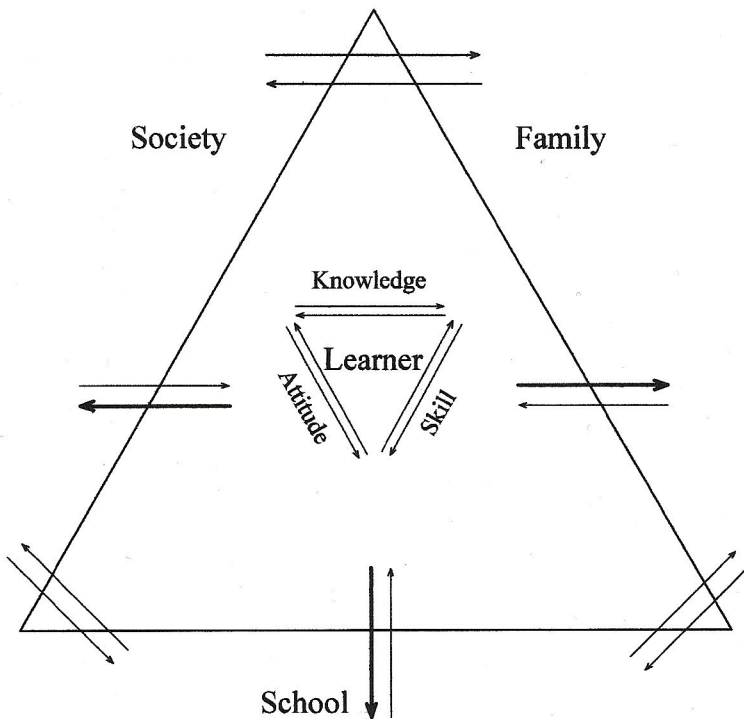
Figure 13: The components influencing learning/Scintific, artistic & technological literacy

national and educational development, which have occurred since the end of the Second World War for considering the role of education in the development from personal to international arenas. The interaction between the State sphere, the Production sphere and Civil sphere, he speculates what, in regard to future changes and in regard to contents of the 2025 year edition of "*Education and National Development,*" we may have to deal with. Who knows? Perhaps, the title of the book may not include the word "national" at all?" Fagerlind (1997) explains "the fact is that educational strategies, directed to the attainment of development objectives, can be successful. However, the implementation of plans takes time, and the attainment of goals requires even longer. But clearly, there is much room for further research directed to the full range of conditions affecting the education-development relationships.

By paying attention to Figure A and the approaches and methods of MDC, we will begin to learn about educating new world's child. Because of everyday development for artistic, scientific and technological literacy, a child's learning environment is so different from those of yesterday's child. Our common course with children is to apply cross-curricular issues to an understanding of the "foundation of human civilization." One proposed research for considering the role of this new area of a child's education in personal, local, national and international development could be based on a project of MDC. " Our Globe" project of MDC, covering all components which influence the children's education about our globe (chil-

dren, teachers, parents, etc) and their mutual interaction, will be suitably used in the education of children to allow more attention to be given to the development of the child's whole character. Development of the child's whole character will affect all components.

'Our Globe" is the name of the first educational package based on MDC, submitted to the Madreseh Company, and includes: 10 Activity Cards, 40 Picture Cards, 14 Poster Book, 224 art and science activities, stories, poems, play and games in the Art and Science Book, Teaching Guide, Teacher Resource Book, Student Workbook, Video Tape (Creative Puzzles), Audio Tapes and Compact Discs (Globe Songs & Globe Stories), Theoretical Support Books, which include books about every area of art and science according to MDC approaches. For producing and applying such a multi-media package, adults have at least two roles (writers, poets, playwright, artistic director, painters, game writers, music composers, graphic artists, subject specialist, curriculum developer, editor, parents etc).

If educators in other countries envisage the interaction of life, Art, Science, Technology etc, in the education of the "foundations of human civilization" with regional characteristics, as a basis for discussion about educating today's children and hence future adults, I am ready to share the development of MDC, particularly block/projects of "Our Globe" around the world. Perhaps, the following question will give its implicit response

What is the role of education (i.e., "Our globe" project of MDC for preschool and elementary school) in artistic, scientific and technological literacy development and understanding of the foundations of human civilization, personally, locally, nationally and globally?

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