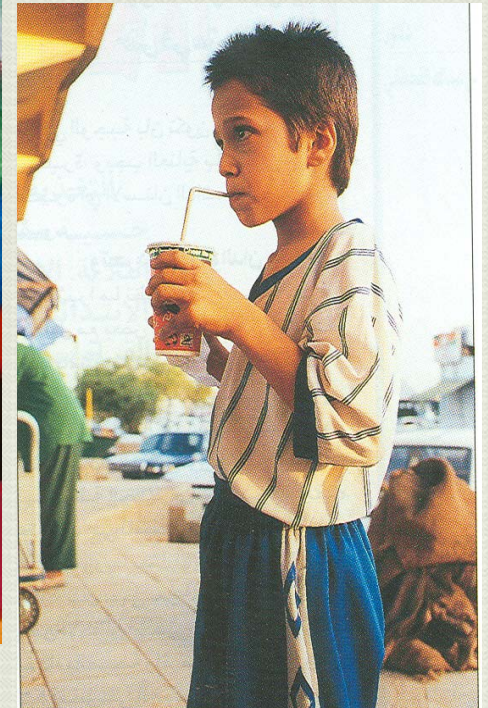
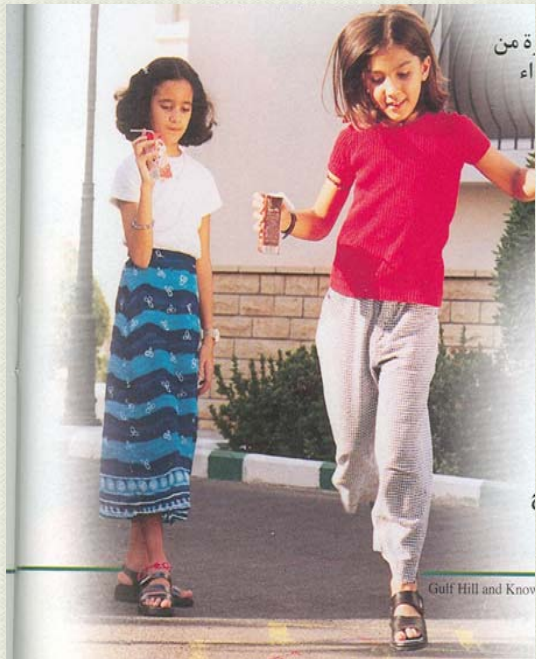


The Right of a Pre-school Child to Developing a Scientific Mind



Dr FAIZA HUSSEIN ABD ALLA



Review

- This presentation rests on the analysis of the pre-school curricula in the Sudan
The presentation is divided into the following sections:
- Introduction
- Importance of pre-school education and justification;
- The goal & Objectives
- Methodology;
- Pre-school education in Sudan;
- Analysis of pre-school education and discussion;
- Pre-school child's scientific mind as a human right; and
- How to enforce this right

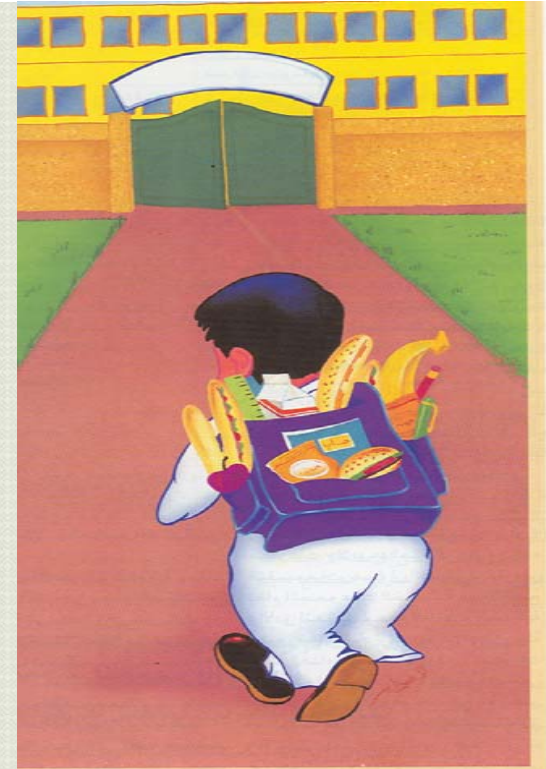
(1) Introduction (Definitions)

A/ pre-school age importance,

B/ scientific mind,

C/ its features,

D/ engineering factors and Importance:



A/ pre-school age importance



- *80% of the nervous system develops during the first 8 years of life.
- * “some parts of the brain do not reach maturity until adolescence”

B/ scientific mind,



- ***The mind is defined as an emergence of the brain brought forth by culture, and it would not exist without the brain(Moran,1999).**
- ***While Whitmer stated that the mind is shaped by the information that comes from the body and accordingly it is part of it (1997).**
- ***information from neurology indicates that changes in external environment interplay with the changes in internal development of the nervous system.**
- ***Development of the N.S. depends on the environment or the surroundings on which the development takes place.**



- ***Accordingly the mind is also a result of an interaction between inner and outer environment of the body.**

- ***There both culture and nutrition, are of top significance.**



- ***The scientific mind as a dimension of human capacity was defined by Visser (2005) as “creative essence of who we are and to understand the extent of complexity of problems we face”.**
- ***He also stated that “the essential features of scientific mind**



- **The author of this paper finds the following as important features for a scientific mind:**
 - (1) Ability to solve special problems; (2) Understanding;
 - (3) Freedom of opinion and expression; (4) Critical abilities;
 - (5) Ability to compare;
 - (6) To think globally (whole/part relation);
 - (7) The ability to use a comprehensive scientific and rational way of thinking; and
 - (8) Active participation.
 - ✦ (Abd Alla, 2007).

engineering factors:



- (1) Affectivity,
- (2) Nurturing of the brain,
- (3) Culture,
- (4) Patriarchy,
- (5) Interplay between external environment and internal development of the nervous system,
- (6) Integrity of the mind,
- (7) Interests,
- (8) Intelligence,
- (9) Learning,



- (10) Linking study of modern science with its history, philosophy and methodologies that produces it, and
- (11) Strategy of pedagogy.

Importance of Schools:

- *Building a scientific mind requires a multiple setting.
- *Schools and all other education institutions should play a major role than they are doing due to repercussions of globalization.



- ***Globalization results in the domination for best quality and cheapest commodities**
- ***employers want workforce to be flexible and innovative**
- ***This entails constant adaptation to different situations and acquires new knowledge.**



- **Consequently, it is very important to equip children from birth – if possible- with means and capabilities that enable them to produce knowledge.**
- **These abilities are only achievable through developing a scientific mind and scientific thinking.**



- **The student has to be accustomed to a more independent way of studying.**
- **The base for this type of education is laid down in early years of childhood.**
- **The scientific mind as a dimension of human capacity is of vital importance in this respect since it is the “creative essence of who we are and to understand the extent of complexity of problems we face” (Visser, 2005).**



- **And the pre-school education is of vital importance since during those early years the child gains knowledge and develops competencies that are the underpinning of later learning.**

(2) Importance of the Pre-school programs and justification of the study





- During the pre-school education, bases for self-education and life-long learning are laid. especially if children needs; such as abilities of thinking, giving opportunities of self-expression and creativity are fulfilled.
- Also researches indicated that it could help to moderate or eradicate learning disabilities, such as mental delays and retardation.
- The effects go beyond the learning of basic abilities to include; improved school attendance and performance, reduce repetition, increased employment and reduced delinquency during the teenage years.



- However, much of the capacity for success in life depends on: the quality of prenatal care of mother, on nutritional adequacy during pregnancy, psychological health of the mother and on both the physiological and spiritual nurturing of children during early childhood.
- These transfers include such critical assets as self-esteem, a work ethic and a sense of discipline and awareness of family traditions and of the community to which one belongs, a vision of opportunity, and a thirst for knowledge.



- “Earliest stages of human life- from conception to primary school age (6-8 years old)- are the most critical interval of the “Intergenerational Transmission of Poverty (ITP) Cycle”, which is the process by which parents pass on poverty and disadvantage that occurs primarily in early child years of life to their children”.
- The programmes directed to the children have to be of good quality and meet the needs of the children to live, grow and develop psycho-socially and cognitively.



- **The more advanced the development of a child, the greater the potential of that child to participate actively and positively in life's events, and to become empowered to affect others and the world around her/him.**
- **Attention to child's development in all its dimensions can help to increase survival and growth, even as it enhances the development and quality of life.**



- **!Developing countries have to be gainer and producer of knowledge.**
- **And thus eliminating one of the causes of poverty as stated by the World Bank.**
- **Thus this article suggests that the pre-school education and its quality control, could help the poor countries stop getting disadvantaged and marginalized in a globalizing world and a mean of getting out of their " poverty trap "**



- And to reduce risks of conflict; "Some empirical evidence shows that civil wars are concentrated in countries with little education and importantly a country with higher percentage of its youth in schools reduces considerably its risks of conflict".
 - ✦ Collier (2000)
- Needs of people in Sudan for such programmes (marginalization, natural disasters, and conflict areas)

2: Goal of the paper



TO MAKE AN ASSESSMENT OF THE PRE-SCHOOL CURRICULUM FROM THE POINT OF VIEW OF ITS SUITABILITY FOR THE DEVELOPMENT OF THE SCIENTIFIC MIND, WHILE LOOKING AT NOT AVAILING ROOM FOR SUCH A MIND SET AS VIOLATION OF HUMAN RIGHTS ON EDUCATION, DEVELOPMENT AND PEACE.

Objectives



TO SEE TO WHAT EXTENT THE CURRICULUM DESIGNED MANAGED TO HELP:

- **1/ acknowledge, importantly, features of scientific mind like: collaboration, dialogue- including respectful dissent; independence of thought; tolerance of thought of others; practice of establishing ways of coming to agreement, that are of significance to a country of multidimensional cultures and faces serious conflicts almost in all its parts.**



- 2/ to provide room for features of scientific mind of relevance to age of a pre-school child stately: inquiring, and imagination / creativity etc.....?
- 3/ to establish a base and creating a foundation for future education ?
- 4/ to discuss development of scientific mind of a preschool child as a number of human rights - since it has to do with the right to education, development and peace? and
- 5/ to suggest measures to enhance these rights.

3: Methodology

- Qualitative content analysis of all books, reading materials and teachers' guides is adopted.
- It is considered as the principal reference for the teacher.
- Experience Curriculum: contains seven experiences in the following areas: 1/ Islamic religion; 2/ Linguistics (Arabic only); 3/ Mathematics; 4/ Sciences; 5/ Socialization; 6/ Arts; and 7/ physical experiences.
- The second book is: Units Curriculum




- These are five units for the first year (my kindergarten, my family, my town, my farm and the market) and six units in the second year (the sky, my prayers, my body, transport, my profession and craft and my country) plus an additional unit that is directed to be delivered during feasts.



- (C) Two Teacher's Guide Books, one for each year and that contain plays (physical and others) targeting development of the senses.
- (D) Training books for teachers that acquaint her with the pre-school child needs, explains the curriculum and how to use it and to plan its execution, how to solve child's behavioral problems, how to deal with children with special needs, thinking and intelligence skills. In addition to,
- (E) Nursery rhymes books

4: Pre- school Education in Sudan



***THE GENERAL EDUCATION PLANNING ACT
WAS ENACTED IN THE YEAR 2000.**

***THE NATIONAL ENROLLMENT PERCENTAGE
FOR THE YEAR 2003**

5: Analysis of Pre-school Curricula and discussion



**PHILOSOPHY, COVERAGE, CONTENT,
ACCURACY OF INFORMATION, METHODS
ADOPTED, TEACHERS TRAINING, and
Environment**

(a) **Philosophy of the pre-school education**



- Emanates from the philosophy and goals of Sudanese education which rests on values and religion heritage and on goals that were drawn by the National Conference on Policies of Education (1990).
- The goals assured the religion and religious values and on contemporary comprehensive development that adopt latest development in the field of education (Omer, 2006).
- society is also an important determinant for designing curriculum for its schools and as well the pre-schools goals that were stemmed from it.

(a) **Philosophy of the pre-school education**



- ***curriculum ought to be characterized by substantial amount of communality in certain aspects while in certain other aspects in-built mechanism for flexibility to encourage local initiative and specificity would be more desirable” (Arora, 2000).**
- ***This desirable curriculum described by the former writer is of importance for sharing peace, the same land and resources especially if we consider the opinion of constructivists who point out that ethnicity is not an immutable fact that inevitably leads to war. It is socially constructed in the sense that symbols, myths, and memories can be altered over time (Joseph, 2005).**



- **The dominant discourse in Sudan is one where power and Islamic theocracy legitimize each other and spill over into the educational discourse. The homogenizing efforts of the dominant discourse are to eradicate differences.**



- The official language of communication is Arabic and until commencement of Comprehensive Peace Agreement.
- Sudan, contains within its borders representatives of all the major defined grouping of language in Africa, except the Khoisan languages of Southern Africa .
- UNESCO advices using ‘mother tongue languages’ at least at basic levels of education as well the Child Rights Convention (Article 30).



- **(b): Coverage**
- It is difficult to control the irregular pattern of distribution of the kindergartens due to the fact that the bulk of pre-school education is still under direct supervision of the community .
- And as well there is no feeling of its importance at both ministerial and country levels. Hence “The State of the homeland, the eighth Sudanese Strategic Report (2006-2007)” came bare of any information concerning the pre-school education although statistics for the year 2004 indicated the percentage of population below 5 years equal to 15.5% as appeared in the previous report. Also it is noticed that this type of education is concentrated in towns whereas the rural dwellers constituted 62% of the population.



- It seems that the work of Myers in his famous book “The Twelve Who Survive: Strengthening programmes of Early Childhood Development in the Third World” are still valid. He in 1992 stated that “at present, a detailed and comprehensive description of child care and development in the Third World is impossible..... A great deal of child care is so informal that it is not included within any set of statistics”.



- **(c) Content:**
- varied skills but they are badly scrutinized to the needs of the child.
- Previous studies on the curriculum revealed that: Islamic learning constitutes (19.7%), language (18%), social learning (18%), scientific learning (18.4%), mathematics (14.3%), physical experiences (6.7%), and artistic experiences constitute 4.9% of the experiences offered by the curriculum.
- Knowledge and experiences that are offered to the child constituted (56%), 1991), putting in mind that more than 95% % of the population are under the poverty line according to the strategic report (2004).
- The present study shows that the ‘Islamic religion teachings’ constitutes a major part in the syllabus both explicitly and implicitly. This in itself leads to expelling the others who belong to different religions.



- Also Muslim children have to study and learn most of the religion teachings and holy Quraan by heart and without even being able to grasp the meaning. Thus leaving a small room for free thinking, imagination and creation let alone the time allotted for playing and engaging in creative activities and arts will be very limited.
- “Experiences Curriculum” covered 86 values that repeated themselves either explicitly or implicitly 2804 times and the rating of these values indicated in a descending manner is like this: 1/ God’s thanks; 2/ Love for prophet Mohamed; 3/ in-depth observation; 4/ believe in God; 6/ love and respect for Quraan ; 7/ knowledge of the elements of environment., 9/love of homeland; 9/obeying parents; 10/ loving beauty; 11/playing; 12/ loving the ‘Book’; intimacy of family relations; 13, the pilgrimage (Hajj) ;



- 14/discipline; 15/ loving teacher; 19/ expression of opinions; 20/ appreciation of hand work, 21/ relaxation;22/ patience; 23/ perfection and creativity;24/ loving kindergarten; 25/ solving problems and the last value to come is logical thinking. Park (2006) mentioned that “one must not overlook the social, regional and national interests that shape our selection of communications, and also the way we perceive them”.



- ***brain development objectives were clearly and explicitly stated as well as affectivity, imaginary development and skills of collaboration and respect of others.**
- ***Means of discoveries, problem solving and cooperative learning did not amount to the same importance.**
- ***The educational experiences need to be changed to be more practical than they are. This phenomenon is found to prevail across all the levels of the educational systems of the Arab World.**
- ***Assessment of implementation of objectives was not designed to be executed according to principles of measurement and evaluation. No example was given for assessment of the daily programme.**



- **Accuracy of information:**
- *Article (32) reads “State parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child’s education, to be harmful to the child health, mental, spiritual, moral or social development”.
- *looking into the nursery rhymes books; explores the fact that one of nursery rhymes gives the meaning that: “the fish under water respire without air”
- *That nursery rhyme hinders future understanding and learning especially these rhymes are easily absorbed and get stuck in mind of a child.



- As such, such an erroneous statement will put the mind of the child astray about respiratory systems in all animal kingdom.
- *Another feature of this curriculum is that; the absence of the concept 'sustainable development' in the curriculum, although elements of the physical environment were there.
- *A crucial important feature of this type of education in Sudan is that generally the teachers are not well-trained and some of them are not trained at all and have no culture to deal with children in order to enhance their learning and socialization in future years.
- The environment of the kindergarten



- * What are offered to a teacher are two guide books and a book called “Units” which actually only details the “Experience Curriculum”.
- *The stereotype of a girl in the books leads to exclude her from the domain of knowledge.
- *From the previous analysis it is clear that the curriculum hinders the improvement of the scientific mind of the child and it violates the child rights as appeared in CRC.



- **(6) Pre-school child's scientific mind as a 'number of rights':**
- *The Child Rights Convention, Article 18 (3) states that: States parties shall all use appropriate measures to ensure that children of working parents have the right to benefit from child-care services and facilities of which they are eligible.
- *Therefore, the pre-schools and kindergartens are supposed to be child –care services.
- Article 28 of the CRC states that: “State parties recognize the child right to education and with a view to achieving this right progressively and on the basis of equal opportunity, they shall in particular: *inter alia* “to take measures to encourage regular attendance at school and reduction of drop-out rates”.



- **Pre-school education prepares the child for school and there is nothing better than seeing a child well prepared for the school and the school is well prepared for the child.**
- **“The readiness of children for school is defined in terms children’s physical abilities and activity levels, cognitive ability, learning style, knowledge base and social and psychological competencies, while the readiness of the schools for the children is considered in terms of availability, accessibility, quality and adaptation to local needs and circumstances”**



- Pre-school education was found to help to decrease drop-outs and reduces the cost of schooling years.
- Researches indicated that support of pre-school education for young children will undoubtedly stabilize children, provide them with structure and most importantly frees up time for their parents and guardians to address other concerns.
- Introduction and supporting of simple community-based kindergarten and pre-school activities could be effective ways of ensuring girls' enrollment and retention in school.
- *According, to both Articles namely Article 18 (a) and Article 28, the current paper deduces that kindergartens and pre-school education are parts of the child rights.



- ***Also for the following: (1) Societies benefit through increased productivity and cost savings associated with enhanced early child development and education.**
- **(2) The role of pre-school education in human development which can no longer be seen as a luxury for developed countries that wish to grow and create better living conditions especially for multi-cultural societies who must nurture the child with how to respect the other, his culture (knowledge and wisdom), teaches him to sustain environment and family linkages, human rights and citizenship.**
- **That means to create an environment of social inclusion, in which one can take advantage of their talents, their skills and their ideas.**



- During such programmes bases for cooperation, respect of other, democracy and peace are laid.
- The catastrophic Darfur crisis is an example where due to the accumulated repercussions of marginalization and conflicting economical interests and as a result of political polarization during the present conflict and in the past, segregation between the African and Arabs and tribal identities became too pronounced and contributed effectively to the conflict –although in the past it had no significance (International Fact Finding Committee for Darfur, 2005 in Elgizuli, 2006).



- (3) Access to education besides being a fundamental ‘right’, it is also an effective tool of promoting global values of humanity and citizenship not only in peacetime but more importantly during civil wars (Sommers, 2002).
- (4) “The human development” and “peace” are parts of the human rights;
- This paper deduces that pre-school education of good quality should be seen as a human right through which other rights will be achieved.



- And reading the CRC indicates the following: Article 6 (2) which states that: State parties shall ensure to the maximum extent possible the survival and development of the child, Article 8 stated the child right 'to preserve its identity' and Article (13) reads like the following: The child shall have the right to freedom of expression, this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in form of art or any other media of the child's choice.



- Art. 29 states that the education of the child shall be directed to: (a) “development of the child’s personality, talents, and a mental and physical abilities to their fullest potential.(b): the development of respect for human rights and fundamental freedoms, and for the principles enshrined in the Charter of the United Nations.(c): The development for respect for the natural environment and Art. 30 gives the child belonging to minority the right to “... enjoy his or her own culture, to profess and practice his or her own religion, or to use his or her own language”.



- Since these principles and values enshrined in the child rights constitutes important features of the ‘scientific mind’, development of the scientific mind is considered by the present study, as a right to be respected although it is not explicitly stated in the Convention. Putting in mind these rights will not be able to cultivate them unless the foundations of these rights are put ahead in early childhood. Therefore, developing a scientific mind for a pre-school child is a human right. Thus, since earlier the paper made inferences that pre-school education of good quality should be seen as a ‘number of rights’ and developing a scientific mind is one of the features of the ‘good quality’, therefore, developing a scientific mind for a pre-school child should be seen as a human right through which other human rights will be achieved.



- **(7) How to enforce these rights and Conclusion:**
- Generally, “The international human rights obligations of states are implemented, if at all, through national action. Like most obligations in international law, international human rights obligations ultimately rest on the more or less voluntary willingness of states to discharge their obligations. Complaints/communication procedures also depend heavily on the good intentions of states. Confidentiality and direct state participation is the norm. The only real sanction available to most supervisory committees is whatever additional publicity its report may provide” (Donnelly, 2003).



- Experiences also indicated that the major task facing child rights advocates today is making the UN Convention on the Rights of the Child a reality for all children. Yet the study suggested that the following:
- 1/ There is a need to make the pre-school education a legally binding right through a legislative enactment.
- 2/ To work towards producing a special covenant on education that addresses all issues of education (philosophy, content and its accuracy, pedagogy, and administration....etc)
- 3/ UNCIEF should participate in pre-school education of good quality in Sudan beside supporting Khalaws (Koranic Schools) and girls' educations especially in rural areas and areas of conflict with special attention to children of special needs.



- **4/UNESCO should adopt teaching a course on child development that is linked to the child rights at all final classes of basic and secondary schools and in universities. This course is expected to make the future parents accountable for their children development, better education chance for their children, and appreciation of mothers' rearing child role and could help in sharing household responsibilities and achieving gender equality beside the immense societal and global benefits from that type of care to the child.**



- **5/ The involvement of the public is a must for building the scientific mind of children. Institutions other than ministries of education and social affairs should also be encouraged.**
- **6/ Such analyses and evaluations of curricula of all levels of education could be safely used as means to explore to what extents that governments are in compliance with the human rights conventions.**



THANKS