

A Comparison of Primary Mathematics Curriculum of Bangladesh and West Bengal of India – Why?

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TO KNOW THYSELF compare thyself to others
Every individual is different from another. Similarly, nations too differ from each other. International comparison between educational systems generally has a long history, although it is only recently that it has been motivated by concern for others rather than national self-interest. Comparing, of course, is one of the most basic of conscious human activities; we necessarily and constantly compare in order to make choices and to judge where we stand in relation to others and to our own past. In the more specific context of education, it is important to distinguish the comparing, importing and exporting of ideas, which is an activity intrinsic to educational development, from the task of attempting to devise rules of and procedures for doing so in a systematic way (Alexander, 2000).

Education for international understanding and co-operation is a growing field in many countries; it is possible to find programmes of its nature in universities, in schools and in adult

education, but these programmes often need to be radically changed if they are to become meaningful. Today, mankind does not need verbal declarations on international understanding or vague intercultural exchanges. On the contrary, it needs concrete, scientific, technical, cultural and economic projects that reinforce the capacity for self development in countries. For this very reason, education for international co-operation has to be action-oriented, and fully aware of the concrete problems of national and international societies (Goedegebure, 1994).

Internationalism implies the awareness of all human beings as members of a single human society, irrespective of national boundaries and other differences. The modern period has seen a remarkable transformation in means of transport and communication, tremendous spread of education, and notable increase in the mutual contact between citizens of the world. As a consequence, the world has shrunk in size, thereby increasing interdependence even among people who are geographically far removed. United Nations Educational Scientific and Cultural Organisation (UNESCO), one specialised body of the UNO, is dedicated to the spread of international understanding through the medium of education in every part of the world (Sharma and Sharma, 2002).

Educational comparison is not merely incidental—a byproduct of idle human curiosity as it were. For those who have responsibility for the education of others, be they policymakers, administrators, researchers or teachers,

comparison is actually essential to educational progress (Alexander, 2000).

Comparative Perspective – Mathematics Education

Comparative studies in mathematics education have impact on several areas of education including debates about educational policy, instructional methods, and the effects of socio-cultural factors on education (Plomp and Loxley, 1993). There have been great changes in recent decades in mathematics curricula all over the world. Many countries have reformed their mathematics programmes to keep pace with the current developments in various fields of education and technology. Any attempt at reform would take into account local conditions which can vary from one country to another. Nevertheless, reform in all countries finds common difficulties which can be overcome by using the same methods (Aram, 1986).

Mathematics education reform movements have shown different practices in different countries. Some countries have tried to make use of other countries' experience, whereas some countries have tried to find solutions to their problems by seeking indigenous answers. It is, however, believed that the need for promoting international co-ordination and understanding was perhaps never as pressing as it is today (Aram, 1986). The universality of the teaching of mathematics is a recognised fact. Perhaps no other subject is taught so universally as mathematics and the syllabi, methods and objectives of teaching this subject are quite similar

in different countries of the world. The nature of the subject is such that it would easily lend itself to the promotion of inter-cultural understanding.

Place of Mathematics at Primary Level

Primary education is the foundation of any education system. Mathematics is one of the courses of basic education which is delivered mainly through primary education. In this age of science and technology, one cannot think of general education without sound background of knowledge of mathematics. As Roger Bacon rightly said, "Mathematics is the gate and key of science." Mathematics is as important as language. Primary mathematics curriculum should therefore be developed keeping in view, the needs of the learners and their society. Quality of mathematics education always depends on the curriculum and its implication in any country.

The aim of mathematics education cannot be confined only to knowledge and skill necessary for everyday life. Knowledge and skill of mathematics are pre-requisites for learning other important subjects (Sho, 1997). Developing logical thinking with interesting mathematical activities should be also one of the aims of primary mathematics education. By summing up these, one can say that the aim of mathematics education at primary level could be:

- (i) imparting knowledge and skill,
- (ii) developing logical and rational thinking,

(iii) application of mathematical knowledge in day-to-day life.

The extent to which these aims are imparted through curriculum in any country is a major question!. The detailed study of mathematics curriculum at primary level in any country would answer this question. Comparison of mathematics curriculum at primary level will enable the researcher to study the extent to which above aims are included in the primary the mathematics curriculum in Bangladesh and West Bengal of India and transmitted in schools at the primary level.

What is the Explanation of the related literature?

Related literature throws light on gaps existing in primary education and poor qualities of curriculum and its implication in Bangladesh. Standard of education depends on the standard and effort of the teachers and their performance depend on standard curriculum (Roy, 1986).

Bangladesh, like other nations, felt the need to modify the existing education system to improve the quality of education. With this felt need, different Educational Commissions and Committees were formed. Finally, competency based curriculum was introduced from 1992 (BNCTB, 1988) starting from grade I-V. Curriculum renewal and development is an ongoing process and no nation can afford to neglect this matter. The curriculum must meet the learner's needs, societal expectations, community aspirations and international comparisons. Bangladesh

Education Commission's report (1974) suggested continuous evaluation and research in the field of curriculum materials.

The Government of Bangladesh brought about a reform in the curriculum and syllabus of primary education through the BNCTB which has already been put into practice. But no systematic attempt has so far been made to bring qualitative improvement in primary education through curriculum research, specifically in the area of primary mathematics curriculum. Hossain and Jahan (2000) pointed out some of the major deficiencies in curriculum development in Bangladesh which include:

- (a) lack of professional expertise in the development of modern curriculum, both in the BNCTB and nationally;
- (b) lack of a solid research base, providing assessment information about the previous curriculum and the areas needing revision; and
- (c) insufficient curriculum emphasis on such competencies as understanding, comprehension and application.

In the absence of any empirical study on primary school curriculum in Bangladesh, it has also not yet been possible to evaluate the effectiveness of the existing mathematics curriculum as prescribed by the BNCTB. The facilities for implementing the mathematics curriculum in the primary schools of Bangladesh are not known due to lack of systematic research. Whereas various research studies in India have been

conducted and reported that learning achievement have primary school children in general and mathematics in particular is far from satisfactory (Das, 2000). In the age of science and technology, a strong base of mathematics is absolutely necessary for all. Therefore, developing the basic mathematical competencies among young children is a strong need felt by teachers, researchers and educators.

Why Comparison?

Periodical revision and reform of curriculum and syllabus must be carried out to make it need centred for the children of the country, to achieve the national goals and for the contemporary world, and at the same time all possible measures have also to be taken for its proper implementation. Implementation of curriculum at the primary schools in Bangladesh and West Bengal of India and its study is of vital importance in determining the effectiveness of the mathematics curriculum and the quality of primary education in these countries.

A thorough inquiry into the status of the mathematics curriculum for the primary schools is necessary to give a satisfactory answer to the questions relating to primary mathematics curriculum in Bangladesh and West Bengal of India. Some of these questions are: How far do the objectives of primary mathematics curriculum reflect in the prescribed curriculum? To what extent are the specified objectives of curriculum in consonance with the objectives of primary mathematics education set by experts from other parts of the world?

What are the contents needed for achieving such objectives? How far are these objectives reflected in the prescribed curriculum content and in the teaching-learning process? How far is the content able to bridge the gap between theory and practice? How is primary mathematics curriculum being implemented in the schools? What problems do teachers face in implementing them? How do teachers assess their pupils' achievement in the schools and in the classroom?

Documents of national policy of education and review of related literature tell that Bangladesh needs to improve the quality of education by modifying the curricula at all levels. For the sake of improvement in quality of education, Bangladesh cannot adopt ready-made ideal curriculum and education system from any other developed country because the differences of cultural and social aspects of both these countries would lead to failure of the system. If at all Bangladesh wants to follow or borrow something good as a sample of education system for the sake of better quality of education, she must look into similarities of culture, language and other aspects of that system from which educational ideas could be borrowed for better quality of education.

Comparison – Regional and International Organisations

By exchanging information and experience, pooling expertise, sharing facilities, and undertaking joint activities, several countries working together can increase their resource

base and lower costs to their mutual benefit. Such arrangements are often set up among neighbouring countries (sub-regional), among all countries in a major geo-cultural region, or among countries sharing a common language or having cultural and commercial relations. Regional and International organisations often play an important role in facilitating such co-operation between countries (WCEF A, 1990). However, of late there has been more attention to mathematics programmes which are based upon the needs and cultures of the ethnic mixes found in most countries. First looking at UNESCO, most of UNESCO's work is directly with the governments of its Member States, and the mathematics education programme is no exception. Upon request, the mathematics education specialist from UNESCO works with the ministry of education, advising and providing information. UNESCO's principal emphasis on mathematics education has been to promote the exchange of information, to work nationally, and to co-operate with regional and international groups (Jacobsen, 1996). This, in turn, will help the system to lift the quality of education.

Comparison between Bangladesh and West Bengal of India - Why?

Looking to the fact that the sharing of Bangla, by Bangladesh with parts of India - offer both possibilities and challenges for cooperation among people in education and culture - in the field of literacy as well as in substantive study of science, social science and humanities. It is necessary however to

assert that while neither education nor educational co-operation will alter the basic determinants which politically exist. For example, Bangladesh is known to use Bangla in its judicial and perhaps educational system to a much greater extent than in Indian West Bengal - and the latter is said to be studying the former (Bhattacharya, et al., 1993). The Dhaka declaration (December 1985), as it came to be called, underscored the historic significance of the first ever summit meeting of the South Asian Countries and described it as a tangible manifestation of their determination to cooperate regionally, to work together towards finding solutions to their common problems in a spirit of friendship, trust and mutual understanding and to the creation of an order based on mutual respect, equity and shared benefits (Bhattacharya, 1995). Bangladesh and West Bengal of India, share common historical, cultural, religious and linguistic heritage. Not only do India and Bangladesh have many agreements to their credit to foster all-round ties between the two countries but they also share democratic relations and share many common policies in world affairs. In this context, it is of great importance to study and compare mathematics curriculum at the primary level of both countries. This, in turn, will help spell out the positive points of curricula of both the countries.

Conclusion

Such research work will help to give answers to questions raised regarding the achievement of goals of primary

mathematics education in context of the present needs of the society, existing gaps of the education system of Bangladesh and West Bengal of India in terms of curriculum design and its implementation and suggestions to modify the primary mathematics curricula, if needed for better quality of education and to satisfy aims of primary education. Such comparative study will help identify strong positive and negative points existing in curricula of both the countries that will further enable to give suggestions for modification of primary

mathematics curricula of Bangladesh and West Bengal of India.

Therefore, a comparative study of the primary mathematics curriculum in Bangladesh and West Bengal of India would be of great value, because on the basis of such a study, an insight will be developed into the existing scenario and issues related to mathematics curriculum” which in turn would act as a guide for appropriate plan of action, which may be undertaken for the implementation of good quality primary mathematics education.

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