

Junior Secondary and Secondary Level Education

Comments on the New Curricula

by Mofazzal Hossain

NEW and modified curricula at the junior secondary and secondary stages have been introduced since January 1996. The curricula have been devised and finalised by a Task Force headed by the Education Secretary, Md Ihsanul Huque under a project financed by the Asian Development Bank. The activities of the project included:

a) development of curricula of Secondary and Higher Secondary levels;

b) textbook writing/composition and their publication.

Considering the importance of the curricula for such a basic level, a wider committee with representation from other important disciplines/areas could be formed instead of making a strictly bureaucratic and tightly controlled committee under the Education Secretary. In that case, more diversified points coming out from such a committee would have facilitated to formulate curricula suitable for strengthening the base of the students for building their career according to their aptitude and potential.

Article 17(1) of the Bangladesh Constitution provides guideline on the framework of the education system. The article is specially important for formulating education policies at the lower level. As per this article, the State is to adopt effective measures for the purpose of establishing a uniform, mass-oriented and universal system of education. The Task Force, in violation of this basic and fundamental guideline of the Constitution, designed and formulated a multidimensional parallel system of education at the primary level.

The new curricula has bifurcated the education system at the junior secondary level into general education and madrasa education sub-systems. At the secondary level, three parallel sub-systems have been introduced — general, vocational and madrasa.

There are 9 compulsory subjects of 1000 marks at the junior secondary level under the general education sub-system. Besides, 100 marks have been allotted for one optional paper to be chosen from Arabic/Sanskrit/Pali. The compulsory papers are: (1) Bangla, (2) English, (3) Mathematics, (4) Religious Studies, (5) Social Science, (6) General Science, (7) Agriculture/Home Economics, (8) Arts & Crafts and (9) Health & Physical Education.

Subjects like history, geography and hygienics have not been given proper importance

in the curricula of junior secondary and also of the secondary level. This could not be done as the curricula has been overburdened by the inclusion of subjects like agriculture, home economics, other languages at these levels.

Turning to the curricula of the secondary level, one finds that the system has been divided into three parallel sub-systems, viz. general, vocational and madrasa. The general sub-system has again been divided into science, humanities and commerce groups. At the secondary level 1000 marks have been allotted for compulsory and elective subjects and 100 marks for one optional subject. Marks earmarked for different categories are — (a) General compulsory — 500 marks: 200 in Bangla, 200 in English and 100 in Mathematics; (b) Other compulsory — 300 marks: Religious Studies - 100, Agriculture/Home Economics - 100 and Social Science/General Science - 100; (c) Elective subjects : 2 subjects for 200 marks and (d) one optional for 100 marks.

Social Science has been made compulsory for science students and General Science is compulsory of humanities and commerce students.

Specialisation has been allowed in two elective and one optional subjects at the secondary level. Science, humanities and commerce students will choose subjects from the respective groups. Each discipline will choose two subjects from group A and one subject from group B. Science students will take 2 subjects of 200 marks from (a) Physics,

(b) Chemistry and (c) Biology. He or she will opt for one subject of 100 marks from a list of several science and non-science subjects like (a) Elective Mathematics, (b) Physics, (c) Chemistry, (d) Biology, (e) Geography, (f) Computer Studies, (g) Vocational Education, (h) Basic Trade, (i) Accounting, (j) Arabic/Sanskrit/Pali, (k) Physical Education & Sports.

From the above allocation of subjects it may be found that the allocation does not provide adequate opportunities for science education. To give an example, if a student takes Physics and Chemistry from Section A, he or she can take either Elective Mathematics or Biology or any other subject from Section B. Thus the present curriculum does not provide scope for taking all the basic science subjects i.e. Physics, Chemistry, Biology and Elective Mathematics together. As a result, his or her base for the higher secondary level will be too weak for taking all the four subjects mentioned above. If the curricula is not suitably modified with appropriate orientation towards science, it will surely have adverse effect on science education in this country. It may be noted that Elective Mathematics consolidates the background of a student who at the graduate level wants to choose technology-oriented subjects. Biology, on the other hand, opens opportunity of many other disciplines besides medicine.

The modified curricula have similarly seriously limited the scope of the students of humanities and business education.



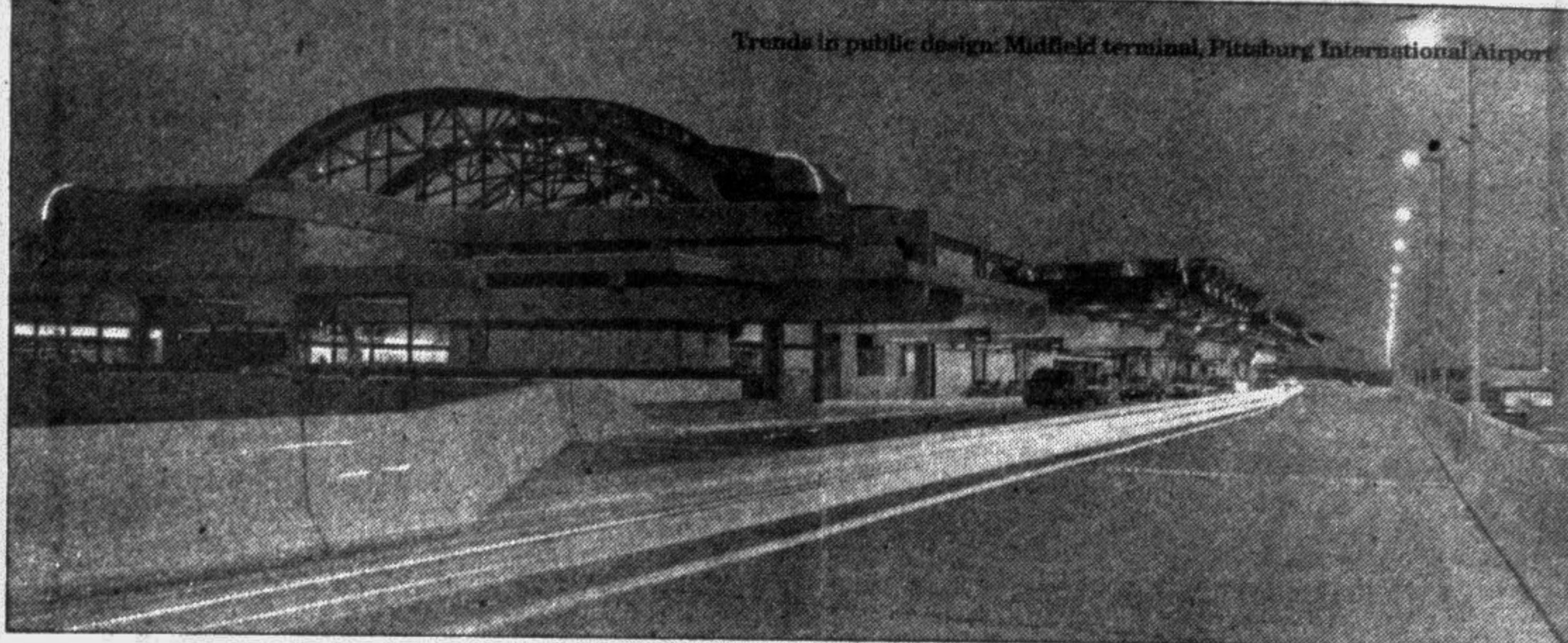
tion group also. The stereotyped curricula for these two groups may have counter-productive effect against opening the talents of the future generation.

A few points on the special subjects like Agriculture and Home Economics included in the curriculum as compulsory are elaborated here. Agriculture is a special subject requiring science background. As a physical science agriculture bears marks for practical examination for which practical classes are mandatory. In such a situation, the Education Ministry has passed orders to the Education Boards to add marks for practical examination in agriculture for students when there are many institutions where practical classes cannot be held and practical examinations cannot be taken due to the lack of teaching aid and other physical facilities. Now the question arises: how a subject which is not taught in the class properly taught as a compulsory subject?

One compulsory subject alternative to Agriculture is Home Economics. Though it has not been specifically mentioned as to the option of the subjects, it is obvious that the option is on sex basis. In fact this has been made compulsory by the educational institutions from that point of view.

This discriminatory syllabus has been imposed at a time when the slogan for elimination of all types of discrimination against women and demand for equal opportunities with their male counterparts are gaining momentum.

Before concluding the discussion, a few points on vocational and madrasa education are mentioned here. The purposes of vocational and madrasa education are different from that of the general education. While vocational education aims at training people for employment, self or otherwise, madrasa education aims at specialisation of religious education on Islam. Vocational education requires special and diversified training schools/institutes as per regional opportunities and requirements. Thus its need, purpose and approach being different from those of the general education, parallel curricula do not appear suitable and justified. Similarly madrasa education has different purpose and objective and quite different from the nature and purpose of general education. It falls short of fulfilling the requirements of modern and scientific education commensurate with the needs of the country.



Trends in public design: Midfield terminal, Pittsburgh International Airport

LETTER FROM HARVARD

Downsizing in America



REFLECTIONS

by Dr. Omar Rahman

more senior clients. I suggest the standard 'pre-nuptial, golden parachute agreement'. Make it too expensive for them to divorce you and you and the company will live happily ever after. The threat of suing the company also does wonders. I urge my readers not to take being fired lying down — they must roar like a wounded lion and hit back — threatening to release juicy tidbits of corporate misdeeds to the press always helps. The imagery here is of the 'primal scream', a return to our 'hunter roots'.

"Wait a minute H H, in two successive books, you have put forth two diametrically opposing messages. For those who do the firing you have this inner growth, holistic notion and for those who are fired, you are invoking images of war and rebellion."

"Isn't that a masterful stroke O R? You see, I call it the 'ying and the yang' of Corporations — the inherent tension between the powerful and the powerless, and how easily you can switch from one to the other. Boy! I never realised my youthful forays into eastern spiritualism would come in so handy. My publicist loves it. He has already lined up interviews with me on *Good Morning America* and *Geraldo Rivera*, where I am being billed as the new business guru — a sort of *Deepak Chopra* of the business world."

"Well H H, I see you haven't lost the art of the hustle."

"O R, I suggest you get in touch with your inner self. I detect a tone of cynicism there. You've got to think positive. I'll send you a copy of my books. Got to go now! I am autographing my new book at the Harvard Book Store, Caiol."

Comets and Space

by M Ismail

A new comet in the sky has generated tremendous interest among the professional and amateur astronomers, star gazers and many others. The comet is so bright that even the amateur photographers are able to take photographs; it is the brightest seen over the last 20 years. The comet was discovered on 30th January this year by a Japanese astronomer Mr Hayakutake and is named after him. This is visible with naked eye in the partial to complete dark and cloudless sky of Bangladesh on the left of the polestar in the north sky for one and a half months. It is moving towards west and will disappear for next 10 to 20 thousand years. It will come as close as 15 million kilometers of earth. In the recent past Halley's comet made its last perihelion visit close to earth in 1986 but its closest approach to earth was four times more in distance than Hayakutake and repeats its visit every 76 years. Earlier Kohoutek's comet was discovered in March 7, 1973 when it was at a distance of 600 million kilometers from sun and then approached within 15 million kilometers of sun and was supposed to be the brightest comet of this century.

Although companies are willing to preserve money for this issue, many fear of being stigmatised. They are afraid if it becomes public, they are doing AIDS education, they will be seen as an organisation with HIV positives.

Education should be the first step, policy development is another, but the ultimate goal should be a follow-up and an intervention programme. "But that is up to the company," according to Datz. Companies should deal with matters like that there are no medical grounds for discriminatory AIDS policies. HIV-positive persons are usually able and need to continue in gainful employment; it makes no sense to screen out infected persons and a rational AIDS policy makes good business sense, helps to avoid unnecessary disruption and enhances a company's image as caring, socially responsible employer.

On September 18, 1995, a professor from a university in India who was participating at the conference in Chiang Mai, heard that he was fired, because of his HIV positive status. The university got the news about the professor's HIV status from Indian journalists who were also present at the conference. Through proper information and education, we have to make sure that similar discriminatory actions will not take place in Bangladesh.

Within 6,200 miles of the nucleus of Halley's Comet and Vega 2 made more closer approach to 4,340 miles of its nucleus. The closest approach was by Giotto of European Space Agency which came as close as 370 miles of it and sent valuable information confirming the composition of its nucleus which is 80% water-ice, before re-approaching contact as it collided with a small space particle.

Comet nuclei which is irregular in shape and size and is only a few miles across (Halley's comet is 9 miles by 5 miles) is made principally of water-ice with methane and ammonia — materials very similar to those composing the moons of the giant planets. The source of comet is known as Oort Cloud, a loose swarm of objects beyond the planets which lies within 75,000 to 150,000 astronomical units from the sun. An astronomical unit is the average distance between the earth and the sun. The swarm of objects orbit in this frozen abyss until they are gravitationally perturbed in new orbits that carry them close to the sun.

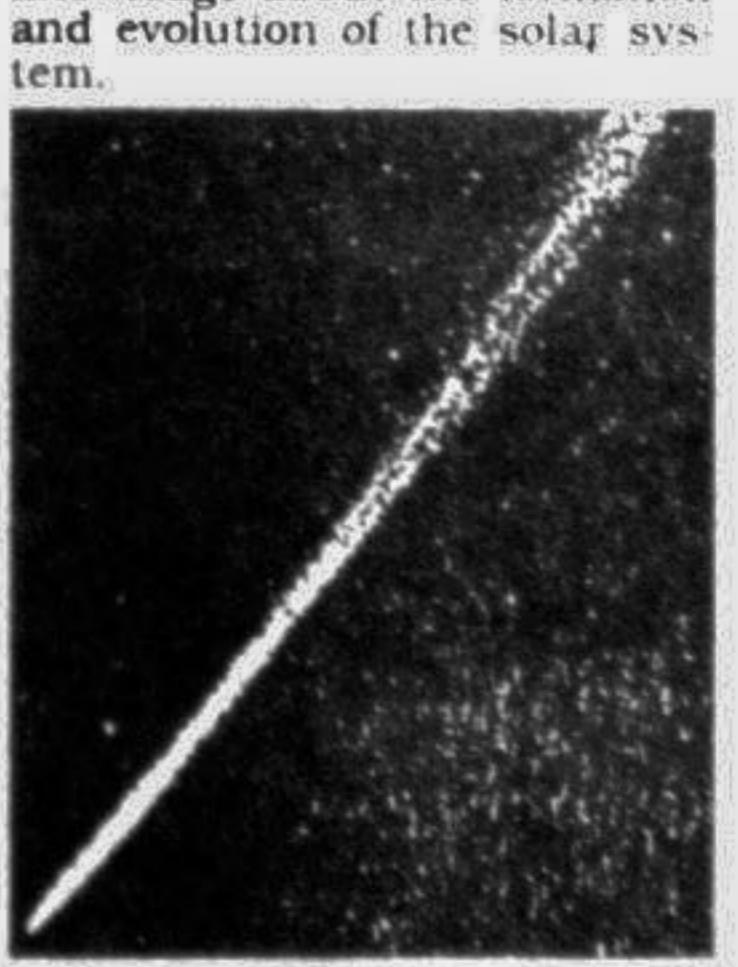
As the nucleus comes within the orbit of the outer planets of the solar system the volatile contents (elements) gradually warm up. By the time the nucleus enters the region of inner planets, these volatile elements start boiling. As these materials boil off the nucleus, they form a 'head' called coma that can measure tens of thousands of kilometers across. The coma grows as the comet gets closer to the sun. A stream of charged particles coming from the sun pushes the cloud behind, like a flag in the wind, forming its 'tail'. Gases and ions are blown directly back from the nucleus while dust particles are pushed more slowly. As the nucleus continues its journey, the dust particles are left behind in a curved arc. Both the gas and

dust chase the comet itself as it recedes from the sun. Thus the tails can be 150 million miles long with dramatic light display.

Some of the comets pass through the solar system only once and are lost beyond.

Comets' orbit is gravitationally modified by close encounter with any of the giant outer planets, changing their orbit to closed elliptical one and repeatedly returning to the inner solar system. Some of the comets are visible at night by close observation but some become so brilliant that they may even be visible in daytime such as, comet Ikeya-Seki was bright enough to be visible in daytime of October, 1965 with unaided eye.

Since the present Comet Hayakutake was unknown to us before 30th January, 1996 no arrangement was possible for study by sending investigative space probe but hope is there of extensive study by ground-based instruments of different observatories across the world. Most importantly, recently rescued Hubble Telescope recommissioned in the space above earth would hopefully give us more interesting data to enrich our knowledge about the formation and evolution of the solar system.



I was reported recently in *The Daily Star* that industrialists in India launched a nationwide campaign to educate their workers about HIV/AIDS and its spread. Bangladesh can learn something from this initiative and should take similar steps to avoid the spread of the virus in this country. The working force is of incredible importance for the Bangladesh economy and well-being. Therefore, it seems rather strange that equipment and vehicles are subject to regular maintenance and check-ups, but staff are often overlooked. The participants of the Training Coordinators in Development and Implementation of HIV/AIDS Prevention Programmes for Employees' workshop held in Dhaka, December 1994, invented the term 'Human Service Station' relating to regular maintenance of employees. Employers would attend regular programmes designed to keep them healthy, alert and in good working order.

During a Tuesday morning workshop on AIDS education in the workplace at the Third International Asia and the Pacific HIV/AIDS Conference held in Chiang Mai, Thailand, it became clear that education

programmes for employees are approaches which have had significant impact in several countries. It was anticipated that introducing such programmes could contribute greatly to slowing down the spread of HIV/AIDS. Staff education should be the first step in controlling spread of the virus and misinformation about it and reducing prejudice against persons with HIV/AIDS.

Unlike devastating epidemics in the past which affected the old, the very young and the weak, AIDS is predominantly a disease of the strongest, most economically productive members of society. In order to minimize disruption and avoid irrational fear and prejudice it is the responsibility of all of us managers, employers and co-workers to address this issue.

has been introduced by some NGOs. Employees are all provided with basic facts about the disease, to dispel common misconceptions and mis-information about HIV/AIDS, and help staff understand the steps they can take to protect themselves and their loved ones from the disease.

People in the audience of the workshop in Chiang Mai were worried about the costs of such an intervention, but Datz explained about the relatively low costs of such a training. And then, as soon as AIDS is really affecting the company and the country, the costs will be beyond imagination. A simple prediction of the costs for Bangladesh, using the rate of spread predicted by a moderate WHO model, will show that if an average of only Taka 50,000 per person is lost, the cost to the nation in the next 20 years will be at least Taka 35.15 billion. Practice has shown that the costs of AIDS can be substantially reduced by effective AIDS prevention of which AIDS education at the workplace is a very essential part.

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James Bond
BY IAN FLEMING
DRAWING BY HORACIO



BY ASRA FEATURES

The writer is presently the Christian Commission for Development in Bangladesh (CCDB).