



Views You Can Use

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The great challenges facing education are not on the horizon. They are here *right now*. As you will read in the “Education Trends” section, one in 10 high schools in the United States is considered a “dropout factory.” The 2008 Model Schools Conference on June 22-25 at the Walt Disney World Swan and Dolphin Resort in Orlando will showcase the nation’s most successful high schools, middle grade programs, and elementary schools. The Conference also will feature the nation’s most rapidly improving schools, which will provide many meaningful lessons. All schools can position themselves to be rapidly improving irrespective of what level of success they are now experiencing. I encourage you to register early for the Conference and hotel accommodations. For more information, go to www.modelschoolsconference.com.

Sincerely,

Bill Daggett

Education Trends

One in 10 High Schools Is a “Dropout Factory”

One in 10 high schools is a “dropout factory,” a high school in which no more than 60% of its freshmen graduate as seniors. About 1,700 regular and vocational high schools, which make up 12% of such schools nationwide, fit that description, according to a recent analysis of U.S. Department of Education data. Large cities and high-poverty rural areas in the South and Southwest have the highest concentration of dropout factories. Many of these areas have high proportions of minority students.

Utah, which has low poverty rates and fewer minorities than most states, is the only state without a dropout factory. Florida and South Carolina have the highest percentages. About half of high schools in those states classify as dropout factories. Nationally, about 70% of U.S. students graduate on time with a regular diploma. For Hispanic and black students, the percentage drops to about half. The term “dropout factory” was coined by Bob Balfanz, lead researcher of the data analysis project at Johns Hopkins University.

Source:

www.boston.com/news/education/k_12/articles/2007/10/30/1_in_10_schools_are_dropout_factories?mode=PF

Japanese Prefer India’s K-12 Education System

Japan, whose students still outperform their U.S. counterparts on international tests, is turning to India to arm its people with an even better education. Although Japan sees China as a political and economic challenger, the country views India as having the edge on education. This, in part, reflects India’s success in electronics, Internet businesses, and various fields of information technology — areas in which Japan

has not been able to keep up pace. China, on the other hand, is seen by many in Japan as a cheap manufacturer.

Indian schools in Japan are expanding and new ones are opening. The Global Indian International School in Tokyo that teaches K-12 students, for example, says that the demand is so high from Indian and Japanese parents that it is building a second campus in the neighboring city of Yokohama. "Japan's interest in learning from Indian education is a lot like America's interest in learning from Japanese education," said Kaoru Okamoto, a professor specializing in education policy at the National Graduate Institute for Policy Studies in Tokyo.

Source: *New York Times*, Jan. 2, 2008

Biotechnology Trends

Let the Blood Flow

Blood type O-negative can be transfused safely to people of any blood type, making it the most needed supply in the blood bank. But Danish researchers have found a way to convert other blood types to O with the help of two enzymes produced by bacteria. The enzymes separate the sugar molecules that distinguish types A, B, and AB-negative blood, essentially converting them to type O. The enzymes, however, cannot eliminate the Rh proteins found on A, B and AB-positive blood. Still, the transformed blood could provide a steady supply and alleviate frequent shortages. Clinical testing is in progress.

Sources: *Time*, Nov. 12, 2007, www.zymequest.com

The Right Pressure

Engineering students from McMaster University in Canada have developed the CPRGlove, which guides a user into the proper way to resuscitate a person. The black neoprene glove, embedded with an array of sensors, indicates whether the user is conducting chest compressions properly by measuring the amount of pressure exerted in each compression as well as the frequency of chest pumps. The glove could improve emergency CPR, as well as improve CPR training and testing. Testing is expected to begin this year.

Source: *Time*, Nov. 12, 2007

Expanding Biofuels Crops Could Mean Higher Carbon Emission Levels

Biofuels increasingly have been seen as a silver bullet in reducing carbon dioxide emission levels. However, converting large tracts of land worldwide, from rainforests to the savannas, into biofuel cropland, in fact, increases the levels of the greenhouse gas, according to two studies recently published in the journal *Science*.

Biofuel crops such as sugarcane, corn, switchgrass, and other crops absorb greenhouse gases as they grow, but they absorb far less than rain forests and the scrubland they are replacing, say the researchers. In addition, the forest and grassland plants and soil plowed to make way for biofuel crops release carbon dioxide previously stored in them through decomposition or fire. On the other hand, biofuels produced from agricultural waste, weedy grasses, and woody biomass grown on abandoned agricultural lands planted with perennials help to reduce carbon in the atmosphere.

Sources: <http://news.mongabay.com/2008/0207-biofuels.html>
<http://blog.wired.com/cars/2008/02/more-bad-news-f.html>, *Science*, Jan. 24, 2008

Economic Trends

Obesity Threatens Economies Worldwide

As globalization has found its way into developing nations, so, too, has the obesity epidemic. Overeating that mirrors the Western unhealthy diet in a sedentary lifestyle has altered the health of hundreds of millions, according to Barry Popkin, Professor of Nutrition at the University of North Carolina-Chapel Hill. His article on the subject was published in the September 2007 issue of *Scientific American*.

Unless preventive policies are undertaken, the medical costs of illnesses caused by obesity could bring down the economies of China, India, and many other developing countries, according to the article. "China already spends more than 6% of its GDP on nutrition-related chronic diseases, and this expense is projected to increase steeply over the next 20 years," says Popkin. Although malnutrition and famine remain major problems in sub-Saharan Africa and South Asia, even some of the poorest countries such as Nigeria and Uganda are faced with the dilemma of obesity.

Source: *Future Survey*, December 2007, Volume 29, Number 12

By the Numbers

The obesity rates in many developing countries now rival those in the U.S. and other high-income nations.

- One in four adults is overweight in nearly all of Latin America and much of the Middle East and North Africa. Many of these populations have greatly increased their consumption of sweetened beverages, caloric sweeteners, vegetable oils and, and animal-source foods.
- In 1989, less than 10% of Mexicans were overweight. As of 2006, 71% of women and 66% of men in Mexico were overweight or obese. These latest figures are comparable to the percentages of adults who are overweight or obese in the U.S.
- Diabetes was nearly nonexistent in Mexico 15 years ago. Today, nearly 15% suffer from type 2 diabetes.
- In China, nearly 13% of adults were overweight or obese in 1991. That figure doubled to more than 27% in 2004.

Source: *Future Survey*, December 2007, Volume 29, Number 12