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First Student Presentation

OVER-SCHOOLED BUT UNDER-EDUCATED; GETTING THE BALANCE RIGHT

**Delta School District
November 15th, 2007**

Participants at this conference might also be interested in the following two articles published by the 21st Century Learning Initiative:

-  **Adolescence: A Critical evolutionary Adaptation**
-  **When will we ever Learn?**

The human race is the planet's preeminent learning species - it is our brains that give us our superiority, not our muscles.

Why, therefore, do we have a "crisis" in education?

What has gone wrong?

In our search for new ideas, what lessons from our past might we have forgotten?



A bone pressure plaque from Blanchard, France, dating from about 30,000 years ago. The sequential phases of the moon have been engraved from observation over two and a quarter months. Nothing comparable for the next ten thousand years has been as yet uncovered. It is the first conceptual performance of Homo Sapiens. After: *Evolution of the Brain, Creation of the Self*, Sir John Eccles.

“Learning is a consequence of thinking”

What was your most powerful learning experience?

How did this shape the way you think about your own learning?

Learning and schooling are not
synonymous.

Traditionally, Education has often been likened to a three-legged stool, which will always adjust to the most uneven surface (unlike a four-legged chair)

**The Home (Emotions)
The Community (Inspiration)
The School (Intellectual)**

Progressively, however, modern society had attempted to define Education as Schooling and has defined schools as having a similar three parts - Academic, Socialisation and Control

“If civilisation is to survive, it must live on the interest, not the capital, of nature. Ecological markers suggest that in the early 1960’s, humans were using 70% of nature’s yearly output; by the early 1980’s we’d reached 100%; and in 1999 we were at 125%.

Ronald Wright
A Short History of Progress 2004

The most crucial location in space and time (apart from the big bang itself) could be here and now. I think the odds are no better than fifty-fifty that our present civilisation on Earth will survive to the end of the present century... What happens here on Earth, in this century, could conceivably make the difference between a near eternity filled with ever more complex and subtle forms of life and one filled with nothing but base matter.

Taken from: *Our Final Century? A scientist's warning: how terror, error and environmental disaster threaten Humankind's future – in this country, on earth, and beyond*; Sir Martin Rees, 2003; Astronomer Royal and Professor of Astrophysics at Cambridge, 2003

Crisis of Meaning

"The biggest crisis we are facing is a Crisis of Meaning. The tremendous social changes of the last 100 years have stripped modern society of that which gives us meaning be it in our roots to our ancestors, religions, spirituality, our relationship to nature..... Within this Crisis of Meaning our young people are facing a MORAL crisis - a crisis of values. Without these anchors young people no longer understand the value of perseverance, learning for learning's sake etc.. Instead our daily lives are filled with a pursuit of money and temporary ecstasy. Both of these goals are unfulfillable and result in a misguided frenzy in the pursuit of the next thrill, or in depression."

E-mail from Dr Rolando Jubis
Psychologist and Counselor
Jakarta International School, 11/11/00

Before the lights begin to dim

or

Where have all the
story-tellers gone?

Ethics and Stories

Humans share their imaginations and bond with one another through the stories they tell. A story is to human growth as a fact is to science, mathematics is to physics, or poetry is to the human spirit. Myths are a special kind of story. They capture and express realities that cannot be put directly into words and shared in any other way.

Stories are the platform on which a nation floats.

Whatever the source of ethics, we humans are by our nature ethics-seeking creatures; language, stories, and myths are the tools we use to identify and articulate the ethics we find.

Margaret Somerville

The Ethical Imagination; Journeys of the Human Spirit, 2006

“What a piece of work is Man!

How noble in reason!

How infinite in faculty.

In form, in moving how express and admirable.

In action how like an angel,

In apprehension how like a god;

The beauty of the world, the paragon of
animals!”

Shakespeare
Hamlet, to Horatio in the graveyard

Purpose Statement

The 21st Century Learning Initiative's essential purpose is to facilitate the emergence of new approaches to learning that draw upon a range of insights into the human brain, the functioning of human societies, and learning as a self-organizing activity. We believe this will release human potential in ways that nurture and form democratic communities worldwide, and will help reclaim and sustain a world supportive of human endeavour.

Evolutionary Intelligence

"Human beings, together with all their likes and dislikes, their senses and sensibilities, did not fall ready-made from the sky; nor were they born with minds and bodies that bare no imprints of the history of then- species. Many of our abilities and susceptibilities are specific adaptations to ancient environmental problems, rather than separate manifestations of a general intelligence for all Seasons."

John D. Barrow
The Artful Universe, 1996

Tell me, and I forget;
show me, and I remember;
let me do and I understand.

Chinese Proverb

Cognitive Apprenticeship

1. Modeling
2. Scaffolding
3. Fading
4. Discussion

... a way of "going beyond what comes naturally". A form of intellectual weaning that balances the rate of physical maturation.

Pregnancy and the Developing Brain

"There is no period of parenthood with a more direct and formative effect on a child's brain, than the last three months of pregnancy leading to the birth of a full term baby. The mother's emotions affect the foetus, and so do her general habits and the parent's physical environment. (Probably) half of birth defects are due to avoidable exposure to medicinal drugs, recreational drugs, alcohol, tobacco smoke, and toxic agents at work and at home."

Marian Diamond
The Magic Trees of the Mind, 1998

"We have unequivocal evidence that breast-fed children are physically stronger than nonbreast-fed children, that they have greater verbal, quantitative and memory abilities as pre-schoolers, and significantly higher I.Q. scores during their school years. This is due not simply to healthy substances in the milk, as many assume, but also to the early mother-child relationship that breast-feeding implies."

Karl Zinsmesiter,
The American Enterprise, May/June 1998

Mechanisation? Big Brother?

"Almost three hundred American employers, including Aetna, Eastman Kodak, Cigna and Home Depot, now offer "Lactation Support Rooms" where female employees can now take regular breaks to attach electric pumps to their breasts in order to collect milk in bottles for their infants in day care. Some companies, aside from the 'pumping rooms', have "lactation consultants" to help mothers solve breast-feeding problems."

Original quotation in "*There's No Place Like Work*" by Brian Robertson, and re-quoted in "*Nasty, Brutish and Short*", an article by Richard Lowry in *National Review*, May 2001

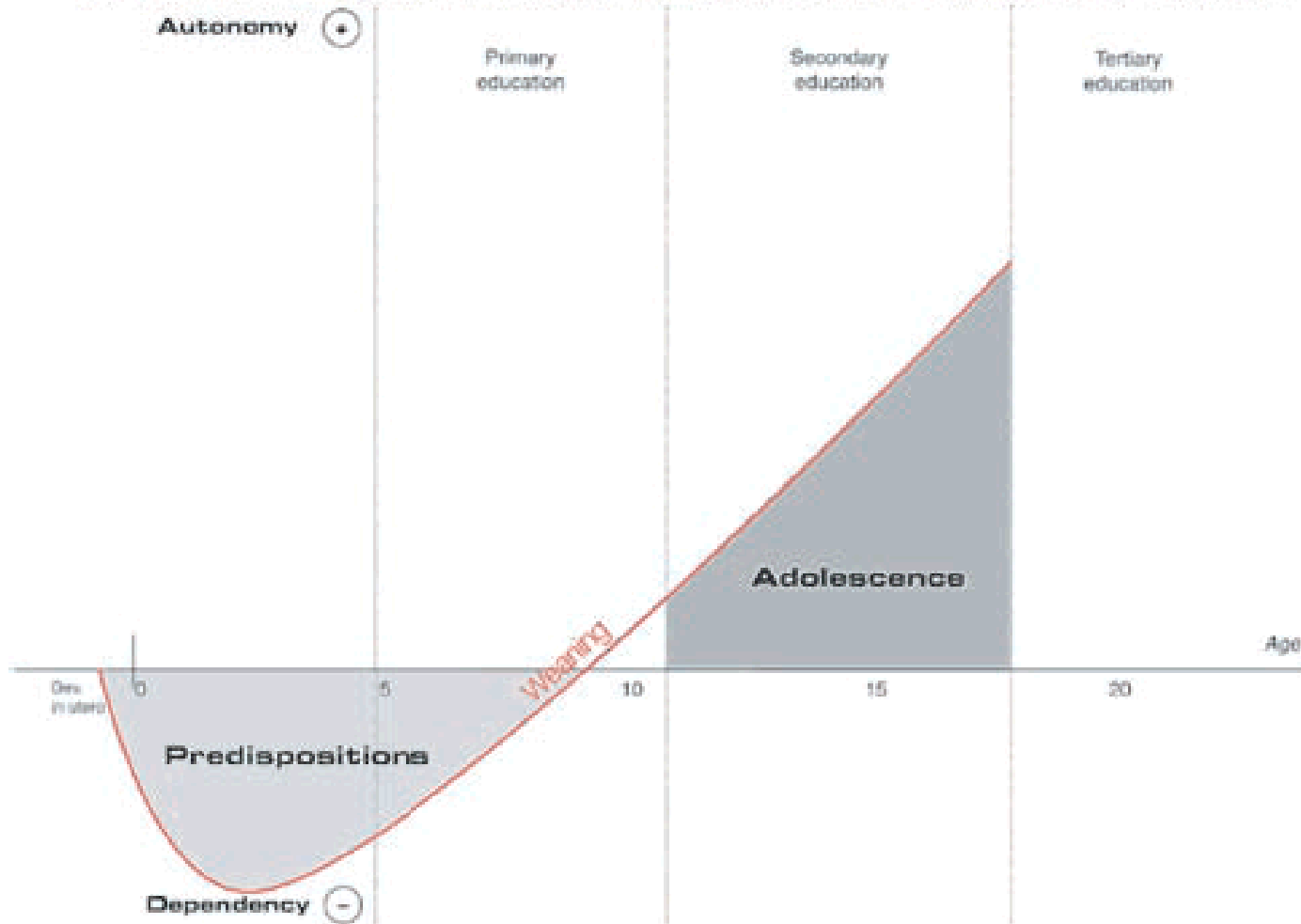
“The new middle-class world in which many American adolescents grow up is one that combines harshness and heedlessness in equal measure, a world which makes it very hard to grow up. It makes it all too difficult to achieve a strong and abiding sense of worth and all too easy to feel like a failure and a loser. It makes it all too easy to feel like an outsider, all too difficult to feel appreciated or respected for being who you are. It is a world in which it is treacherously easy for adolescents to trip up and break the rules but in which no one can be bothered to help them avoid tripping in the first place. Adolescence is rarely an easy time. But it need not be as hard as it often is in America.

The Road to Whatever
Elliott Currie, 2004, page 254

"As we build networks and patterns of synaptic connections when we are very young, so we build the framework which will 'shape' how we learn as we get older; such 'shaping' will significantly determine what we learn – it will be both an opportunity, and a constraint. The broader and more diverse the experience when very young, the greater are the chances that, later in life, the individual will be able to handle open, ambiguous, uncertain and novel situations."

"The Neural Basis of Cognitive Development: A Constructivist Manifesto," by Stephen J. Quartz and Terrence Sejnowski., The Salk Institute, San Diego, California.

GRAPH 2: INTELLECTUAL WEANING BASED ON NORMAL HUMAN DEVELOPMENT



Adolescence

Adolescence is currently seen as a "problem" in Western Society; that excess of hormones leaves the rapidly maturing child unaware of its new physical strength, and confused as to how to direct it. While modern parents and teachers find adolescence disruptive, earlier cultures directed this energy in ways that developed those skills on which the community was dependent for its ongoing survival. In doing so it also ensured that young people learned, and practiced, what was seen as appropriate social behavior.

For further information:

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