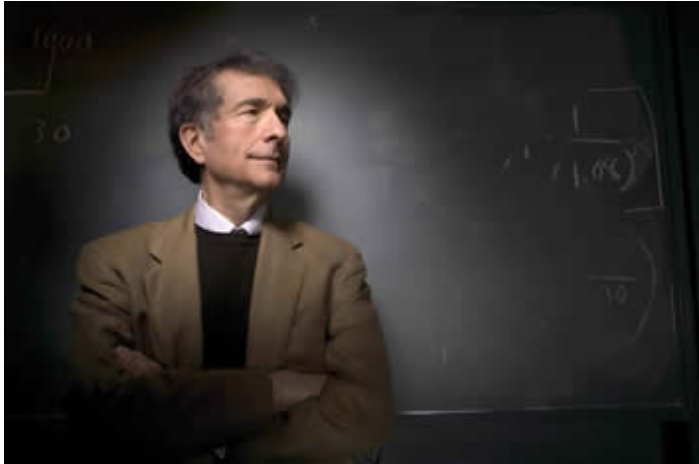


Rules for a new kind of class

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Professor Howard Gardner discusses changing approaches to learning and what this holds for the future of education



Howard Gardner is Hobbs Professor of Cognition and Education at Harvard Graduate School of Education and is one of the world's pre-eminent voices on learning. His theory of multiple intelligences – the idea that individuals display a number of intelligences in different fields – has gained considerable ground in education over the past 20 years and is revolutionizing attitudes to learning – in particular, the achieving of more **personalized curricula**, instruction and assessment, and the examination of the nature of **interdisciplinary** efforts in education. He has received honorary degrees from 21 colleges and universities.

For many years I have been an IB fan. It has taken seriously more of the issues in the world of today (and tomorrow), and has been less influenced by fads, and the test-taking obsessions of ministers of education, than any organization of its size.

In 2005, he was chosen by Foreign Policy and Prospect magazines as one of the 100 most influential public intellectuals in the world.

He explains to IB World why education is embracing more **individual-centred learning** and why teachers must adopt new classroom techniques to keep ahead in a changing field.

IB World: Why is it important for schools to change how we learn rather than continuing the old 'stand and deliver' style with chalk and blackboard?

Howard Gardner: Old habits die hard. Most of us still teach the way we were taught. In certain contexts and for certain purposes, lectures still work, but new digital media, coupled with the ample documentation of the limits of learning through listening and note taking, has shown it is time to take a fresh look at the curriculum and pedagogy.

To take just two examples: we now know individuals have different learning strengths, so it makes little sense to teach us all in the same way and at the same pace. New digital media enable learning which is more individually centered.

We also know individuals have developed strong theories and misconceptions before they even enter school. Until now, these have mostly been ignored, so those misconceptions are never undermined. We need to take into account the ideas that students have developed before formal instruction has commenced and demonstrate the ways in which these are inadequate. That calls for different forms of teaching, curricula and assessment. The approach we have developed over the past 20 years, at Harvard's Project Zero, called 'Teaching for Understanding' seeks to address these needs and new realities.

IB Why should we be more concerned today with learning styles?

HG I am suspicious of the 'style' approach. My theory of multiple intelligences (MI) takes a different tack. Rather than individuals having a single all-purpose computer that embodies general intelligence, I believe we all have an ensemble of relatively autonomous potentials and capacities.

All of us have linguistic, musical, spatial, bodily-kinaesthetic, logical-mathematical, interpersonal, intrapersonal and naturalist intelligences, but we differ in the strengths of each of these and how they are deployed. Effective teaching recognizes these different profiles and seeks to address them in two ways: 1) individualizing instruction as much as possible; 2) teaching concepts through the use of multiple forms of representation, thereby addressing several of the intelligences simultaneously or successively. With these approaches, more students are reached. Students also come to appreciate that if you really understand something, you can approach it and think about it in a multitude of ways.

IB What elements make up the ideal educational system?

HG There is no single ideal educational system. I have four children – and a grandchild. Each of them would have benefited from a different educational system. Indeed, when parents have choices, the most important is deciding which school is appropriate for a particular child. It is also up to parents to supply what the available schools cannot – whether it is exposure to the arts, religion, community service, or models of work (and even leisure).

In my book, *The Disciplined Mind*, I argue that by the conclusion of secondary school students should have mastered the basic literacies; the major ways of thinking (including scientific, mathematical, historical and artistic thinking); and have developed an ethical sense. Teachers play an important role in each of these arenas; but administrators, parents and the surrounding communities have an obligation, too.

IB The theory of multiple intelligences is causing an attitudinal shift in the way schools enable greater access for students of all abilities into mainstream education – why do you think this has come about?

HG MI was developed as a theory of how the mind is organized and how it evolved over the millennia. Its value will be determined by scholars who study the human mind. Educators the world over have drawn on these ideas for numerous purposes. Certainly, MI approaches are more appropriate for students with learning difficulties and, in many cases, they make it easier to include a wide range of students within mainstream education. But I'm no expert in learning differences/difficulties, and would avoid blanket statements such as, 'Mainstream education is always good.' As is true of so much in life, it depends.

IB What can schools and educators learn from MI when it comes to teaching a class of students and planning a curriculum/lesson?

HG Anything worth teaching usually can be taught in a number of ways; by using multiple forms of representation and presentation you reach far more students. If you think something can only be taught in one way, that reflects the limits of your understanding and teaching repertoire. It is worth consulting other

educators, or reading books on differentiated instructions, so you can learn about other ways to present important materials.

IB How can teachers ensure this does not come at the expense of other students, especially those quiet, diligent types who just get on with what they're told?

HG Naturally, it is easier to individualize education when you have 10 students per class rather than 40. But it is up to the dedicated teacher to find ways to reach the individual even when you have a large and diverse class. Having different assignments, artfully using resources, having students teach one another, drawing on older students or parents as aides – all of these are ways to increase the pedagogical and curricular alternatives.

That said, teachers are responsible for all of their charges. It is as unprofessional to ignore the average plugger, as it is to focus all attention on the gifted or profoundly impaired child. Teachers are professionals and have to make the same difficult choices as others who are given a lot of autonomy in how to operate.

IB How do students benefit from 'individual-centered' curricula?

HG Anyone who has ever been frustrated by the prevalent way of teaching, only to have a breakthrough when materials are presented in another way, understands why learning needs to be individualized. It is only those students and parents lucky enough to have capacities that happen to 'align' with those of the existing system who don't see the value of individualized learning.

I have encountered dozens of individuals who have ridiculed MI theory and individualized learning, only to become instant converts when they or their children hit a learning cul-de-sac.

IB By what age do most children display strengths and weaknesses in the different intelligence types?

HG Differences in intellectual potentials can be discovered during the first years, if not the first months, of life. Certainly by the age of three or four they are readily identified, but just because we can find differences, does not mean we should employ expensive technologies to document them. That is only worth doing when one has a reason – as, for example, when a child is having learning difficulties and one wants to understand why and what can be done to circumvent them.

IB How can teachers identify a student's different intelligences?

HG I am not a fan of psychometric identification of the multiple intelligences. Generally, careful attention to the child as they approach a variety of tasks suffices. There are plenty of measures available if one wants to quantify the intelligences, but there are three important things to bear in mind:

1. The MI are a convenient way of grouping human capacities. They are not written in stone and they will change over time.
2. Liking a subject and having intelligence in it is not the same thing. One can like music but be very unmusical; and the reverse is also possible. MI is about computational powers, not personal predilections.
3. Individuals often lack insights into their own profiles of abilities/deficits. It is important to triangulate – to draw on multiple perspectives and sources of information in delineating a student's intellectual profile.

IB In today's world, it seems a teacher needs to be educator, psychologist and social worker – why can't they just be left to simply focus on their main role of imparting knowledge?

Teachers are the last line of defense for many children, who lack the necessary supports at home or in the community.

HG Teachers are the last line of defense for many children, who lack the necessary supports at home or in the community. And so, for better or worse, if these supports are missing, schools and teachers must supply them, or their principal missions of education can't be accomplished. If a teacher is not willing to be that court of last resort, they should choose another profession.

IB What are your thoughts on the IB pedagogy – do you think it exemplifies your own theory?

HG For many years I have been an IB fan. It has taken seriously more of the issues in the world of today (and tomorrow), and has been less influenced by fads, and the test-taking obsessions of ministers of education, than any organization of its size. The development of separate programs for the early and middle years is also meritorious and I applaud the inclusion of the arts as subjects worthy of serious study. The theory of knowledge course is consonant with the importance today of metacognitive capacities and the need for synthesizing thinking that integrates separate disciplines and rival perspectives.

For more on the works of Professor Howard Gardner visit www.howardgardner.com, and for the professor's thoughts about education in the future see his new book, Five Minds for the Future, published by The Harvard Business School Press.