



A CASE FOR THE FUTURE IN THE GIFTED AND TALENTED CLASSROOM

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INTRODUCTION TO FUTURES STUDIES

Modern society is fascinated with and even mesmerized by change and by the future. Ever since the Enlightenment, when thinkers hit upon the idea of progress—that humans and their societies were perfectible (Bury, 1921/2003)—we have been changing the world like crazy, but we have been given little preparation for doing it well, particularly in our education.

Futures studies is the study of long-term change in society and in the organizations and individuals that make it up. The field is divided into two broad divisions—change that is coming to us from the world

(inbound) and change we create ourselves (outbound). Futures studies helps us anticipate, be prepared, and even look forward to change in the world that we have no influence over whatsoever. It also gives us an approach to affect that change within our spheres of influence.

The field did not begin just yesterday or even within the last century. Rather, it has a long and storied history. Sebastien Mercier (1771/1999) was the first author to place a utopia in the future, to the Year 2440, no less, where utopian writers before him had always placed their utopias in far-away places. In the 19th century, Jules

Verne provided images of future technologies in *From the Earth to the Moon* (1865/2011) and *Twenty Thousand Leagues Under the Sea* (1870/2010). H. G. Wells wrote *Anticipations* (1901/1999), one of the first nonfiction works about the future, in which he accurately predicted electrification,

M.S. in Studies of the Future at the University of Houston-Clear Lake (now at the University of Houston²), both of which still exist. Dr. E. Paul Torrance founded the Center for Creativity and Futures Studies (now the Center for Creativity and Talent Development) at the University of Georgia³. He also

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the automobile, the airplane, the telephone, freeways, and household appliances—all of which appeared on the National Academy of Engineering list of the 20 most important developments of the 20th century (Tallent-Runnels, 2005).

Futures studies emerged as a professional discipline in Europe after World War II with works by Fred Polak (*The Image of the Future*, 1955/1973) and Bertrand de Jouvenel (*The Art of Conjecture*, 1964/1967). Futures studies appeared in the English speaking world with Harrison Brown's *The Challenge of Man's Future* (1966/1984) and Herman Kahn's *Thinking Beyond the Unthinkable* (1968/2008), introducing environmental deterioration and nuclear war as two devastating scenarios. Futures blockbusters followed: Paul Ehrlich's *The Population Bomb* (1968/1995), Alvin Toffler's *Future Shock* (1984), and *The Limits to Growth* by Donella Meadows and others (Meadows, Meadows, Randers, & Behrens, 1972).

Futures studies also had an impact on education. Jim Dator created a well-known concentration in Futures Studies within the political science department at the University of Hawaii¹, and Jib Fowles and Chris Dede established the

founded the Futures Problem Solving Program⁴ that currently involves hundreds of thousands of students and teachers who explore futures issues worldwide.

But there it stopped. Futures studies fell out of favor in the 1980s. It was "That 70's Thing!" The forecasted crises failed to materialize, the price of oil collapsed, the Federal Reserve tamed runaway inflation, and Ronald Regan told us it was "Morning in America." The question is whether, instead of just being an extracurricular activity, the study of future issues is important enough to be at the core of every school's curriculum, particularly for gifted and talented students.

THE CASE FOR STUDYING THE FUTURE

Calvin Cannon, the Dean of the School of Human Sciences and Humanities at UH-Clear Lake, was fond of saying, "We study the past, don't we? Why can't we study the future?" Most people, including teachers, have an answer to that question.

"You can't study the future because it hasn't happened yet. The future doesn't exist." By that criterion, however, we should not be able to study the past because it doesn't exist either!

On the contrary, we study the future in exactly the same way that historians study the past and that scientists study nature. They make inferences about conditions they cannot directly observe based on evidence that they can observe. But there is a difference—the quality of the assumptions used. Historians are on pretty firm ground when they assume that the artifacts of the past are what they appear to be. Ruins were probably constructed around the time they were supposed to be, as were the documents, the photographs, and the implements. People writing letters and diaries are almost certainly trying to report their time as accurately as they can. They can be mistaken, but their documents are excellent evidence for historical inferences because the assumptions required to use them are pretty hard to challenge. The same can be said for scientific inferences. No one has put an electron on a balance beam or stuck a thermometer into the sun, but we claim to "know" the weight of the electron and the temperature of the sun by inferring from the evidence we observe.

Statements about the future are also inferences based on evidence. Futurists use statistical trends, goals and plans of influential people and institutions, and images and expectations that people have of the future—all are evidence for making statements about the future. The difference from historical and scientific evidence, however, is that it is fairly easy to challenge the assumptions required to use that evidence. Will the trend continue throughout the forecast period? Will the plan be successful? Will the future turn out as people expect it to? It usually does, but not always, certainly not often enough to be as sure about inferences involving the future as we are about inferences involving

1 Hawaii Research Center for Futures Studies, University of Hawaii, <http://www.futures.hawaii.edu/>

2 Futures Studies (MS), University of Houston, <http://tech.uh.edu/futures>

3 Center for Creativity and Talent Development, University of Georgia, <http://www.coc.uga.edu/torrance/>

4 Future Problem Solving Program International, Melbourne FL, <http://www.fpspi.org/>

the past. As a result, futurists deal in multiple futures, called scenarios. One of those, the expected future, is the one that will occur if all the most reasonable assumptions turn out to be true. Most of them usually do, but not always and hardly ever in exactly the way we expect them to. As a result, we are often surprised when something else happens instead.

Most forecasters usually report just the expected future. It is more likely than any other future, but it is not all that likely in itself. Something else usually happens instead. So futurists go beyond the expected future and report the most plausible alternative futures as well.

So back to education. Is it unreasonable to expect students to be able to extrapolate trends and plans, to identify the resulting differences between the present and the future, and to discuss the implications of those differences for themselves, their families, and for oth-

ers in the world? Should they not also be able to identify the assumptions they use to construct the expected future, challenge those assumptions with other plausible alternatives, and identify the different futures that result?

None of this is rocket science. It does not involve complicated math or computer simulations. If anything, it is nothing but the core of critical and creative thinking, skills that are high on the list of learning objectives for gifted and talented students. True, there are many ways to teach and practice critical and creative thinking, but why not use the future when it is accessible and engaging for students? Teachers who do teach about the future report that their students are better able to perform the mental gymnastics required to do good critical and creative thinking.

But the future is more than anticipating what the world will do. We are players in our own story; we shape

our own future to some extent. So we want to empower gifted and talented students, to encourage them to believe that they can make a difference—not in solving all the world's problems right away of course, but within their sphere of influence, such as their school or their community. Their future is a combination of what the world does, how it offers opportunities and constraints, and what we do, how we can use our actions, the actions of others, and the forces of the world to make the world better for ourselves and the people we care about. The forces thundering towards us are powerful, but they are not definitive. We have power, too, and students should be considering how they can use their power for themselves and for those around them.

FUTURES STUDIES IN EDUCATION

A common objection to including the



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KEYNOTE ADDRESS BY DR. JULIA ROBERTS
Differentiation: More than Different



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future in the curriculum is that there is no time. In a time when whole disciplines like art and physical education are being torn from the curriculum, who is going to add a new subject? But teaching the future need not be a new subject—perhaps someday, but not today. Rather, the future can be a useful vehicle for teaching what we already teach in the gifted and talented (GT) curriculum and indeed in the regular curriculum. Let's look at some examples.

Futures Studies in the GT curriculum

Mary Tallent-Runnels (2005) has summarized the case for teaching the future to gifted and talented students from numerous sources of the last 30 years:

- ...gifted learners have said they love to think about the future, and this love increases as they become older (Torrance, 1978).
- They are more interested in

global issues than other students and sometimes feel helpless to do anything about these issues (Galbraith, 1985; Tallent-Runnels & Mullen, 2004; Tallent-Runnels & Yarbrough, 1992).

- ...they have the potential for intense social, moral, and ethical concerns (Passow, 1988).
- ...gifted learners worry about the future, because they are sensitive to world problems (Passow, 1988).
- They also can be more morally sensitive than others—a trait that is essential to the welfare of our society (Silverman, 1994).
- When supported and guided in positive directions, these qualities can empower them to successfully manage change (Carroll, 1991) and to cope with problems in general and change the future (Torrance, 1974).
- Finally, many believe that gifted youth will become our world leaders and ultimately solve our global

problems. Therefore, we must help them develop their leadership abilities and learn to think ahead to the world they will lead (Passow, 1988; Roeper, 1988; Volk, in press)... They can become change agents and set realistic goals as they lead others (Carroll, 1991).

On a more focused level, what do we want gifted and talented students to learn or be able to do?

- Critical thinking—the ability to use evidence to assess the support for conclusions
- Creative thinking—the ability to break frames and see alternatives
- Problem solving—the ability to identify issues and suggest strategies for influencing them

All three of these skills can be taught effectively using the future. Students think critically when they examine the evidence and identify the assumptions

RESOURCES

The following are resources that teachers can use to teach about the future in their classroom.

- A valuable introductory book about the future for gifted and talented students is Edward Cornish's (2005) book, *Futuring*, published by the World Future Society. It contains a mix of futures concepts along with descriptions of the major trends affecting the world today.
- In fact, the whole World Future Society is a place to start¹. It publishes *The Futurist*, a monthly magazine filled with futuristic ideas. It maintains up-to-date lists of the most recent books in the futures field, and it also conducts a Learning Summit each year at the annual meeting, which meets in different cities in North America.
- Art Shostak's books (2008, 2010) are the most directly focused on foresight education. Although they are targeted at school administrators and policy makers, they also contain dozens of great ideas of bringing the future into the classroom².
- *Shaping Tomorrow*³ is a treasure trove of future trends and issues.
- Charles Whaley graduated from the University of Houston program and then worked with Dorothy Sisk to develop practical books (1984, 1987, 1991) for teachers.
- The Millennium Project is another great source of information⁴. The Project is a network of 40 nodes around the world that contribute research to *The State of the Future*, an annual publication that focuses on 15 challenges facing the world today along with other issues. The Project also distributes the Futures Research Methodology CD that contains more than 40 futures tools and techniques.
- The Waitt Family Foundation funded a project some years ago to produce a 2-day workshop for high school students called *Shaping Our Future*. The video of that workshop and the complete facilitator's guide is available⁵.
- The University of Houston has also offered summer camps on the future both in Houston and at the International Competition for the Future Problem Solving Program. A DVD, *How to Host a Futures Camp*, is available⁶. The DVD also contains the complete curriculum for the camp.
- The universities mentioned in this article also offer courses in futures studies, and the University of Houston⁷ and Regent University⁸ offer courses. The Houston program also conducts a one-week certificate program⁹ for which teachers receive a 20% discount, and teachers in the Houston area offer a 6-hour in-service for GT teachers on futurizing their classrooms. The in-service will also be webcast over four Thursday afternoons in October and November 2011.

1 <http://www.wfs.org>

2 <http://www.educationalfuturistics.com/>

3 <http://www.shapingtomorrow.com/>

4 <http://millennium-project.org>

5 <http://www.ffof.org/index.php?module=Pagesetter&func=viewpub&tid=3&pid=3>

6 <http://www.olivermarkley.com/education-futures/>. To view the 6 minute introductory "how-to" video, click here: <http://www.youtube.com/watch?v=cJ5Hsn9AOw>.

7 <http://houstonfutures.org>

8 http://www.regent.edu/acad/global/academics/ma_strategic_foresight/

9 http://www.uh.edu/continuingeducation/professional/human_development.php

that support the expected future. They think creatively when they entertain alternative assumptions and develop images of alternative futures. Finally, they use both skills in problem solving, first by identifying the real underlying problem or issue and then by creatively brainstorming and selecting the right path for influencing it.

What is more, the study of the future is inherently interdisciplinary. Every aspect of society affects the future—population, nature, technology, economy, governance, and culture. Students learning about the future identify change within each of these sectors and to see the impacts of each sector on the others.

And what about building a strong moral and ethical basis for decisions? The real dilemmas of the future are not between good and bad, although they often portrayed that way in the media. The real dilemmas are between good and good. Students need to be able to recognize the values underlying their choices (and the values that others may use in making different choices) along with the trade-offs inherent in their decisions. It's all about the future: What is the best thing to do (now and in the future)? What are the values that make that the best thing? What are we giving up in making a choice? And ultimately, what shall we do and why? All of these questions are about the future.

Finally, future studies also fits nicely with the Texas Performance Standards Project (TPSP) for fourth, eighth, and exit levels now required by the Texas Education Agency:

Over the course of a year, each student works with a mentor, who is a professional in the student's field of study, to create a unique, innovative final product or performance that is of professional quality. With the mentor, the student investigates an area of interest and passion, which may be outside the traditional high school curriculum. The TPSP provides opportu-

FUTURES STUDIES IN THE REGULAR CURRICULUM

But the future is not just for the GT classroom. Every student needs to prepare for the future, not just the gifted student. Nevertheless, a common refrain from teachers who want to teach about the future is, "We can't teach anything else. All our time is taken up preparing for the standardized tests." True enough. Accountability through standardized testing has certainly gotten everyone's attention! But including futures in the classroom is not about teaching something new, but teaching to the same objectives in a new way.

One of my colleagues, Kay Lynn Fenn, a high school social studies teacher, reviewed the Texas Essential Knowledge and Skills (TEKS) for objectives that could be taught, and perhaps even taught better, using the future as the vehicle. Here are some of the TEKS that could be taught using the future:

- **§111.36. Mathematical Models with Applications (One-Half to One Credit)**—The student is expected to . . . determine the appropriateness of a model for making predictions from a given set of data. (*Do they know the assumptions that the model requires?*)
- **§112.24. Science, Grade 8**—The student is expected to . . . extrapolate from collected information to make predictions. (*Do they review and challenge the assumptions required to make the predictions?*)
- **§113.33. World History Studies (One Credit)**—The student is expected to . . . describe variables in a contemporary situation that could result in different outcomes. (*Sounds like scenarios!*)

nities for students to explore their areas of interest to an extent that is not often possible in school. Such an in-depth study may impact students' future studies and career plans. In other words, the project allows the student to extend beyond the classroom walls. (*TPSP Guide to Success: Exit Level*, Texas Education Agency, 2006, <http://www.texaspsp.org/exit/ExitGuidePrintVersion.pdf>.)

What better way to cap a career in the gifted-talented classroom than to explore the future of the student's interest!

CONCLUSION

The future is an interesting and engaging subject for students. It requires no more preparation on the part of the teacher than to ask three simple questions, whether it's math, science, literature, or social studies:

- What do you think will happen next? (evidence, extrapolation, the expected future)
- What might happen instead? (assumptions, critical and creative thinking, alternative futures)
- What do you want to happen? (values, consequences, implications)

If the last few decades have taught us anything, it is that we cannot simply wait for the future to happen before we respond to it. We must be proactive, anticipating change before it occurs. The attacks, the collapses, and the technologies that have so amazed us over the last few decades were not predictable *per se*, but they could have been the subject of serious scenarios had we been educated to think of the future as a set of plausible scenarios rather than as a single, predetermined future, one that looked a lot like the present. History is the story of interesting and dangerous twists and turns, of events that created whole new worlds for past generations. The future should be the same. And we are the generation that can begin to introduce this thinking into the schools where we can shape minds to deal with the future as it really is rather than as we wish it to be.

AUTHOR NOTE

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