STRATEGIES FOR MAKING ANY CLASSROW EXTRAORDINA

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few years ago, I spent a year with the National Research Center for the Gifted and Talented in the United States. While there, I realized that the approaches utilized in gifted education were in harmony with research, sound educational practice, and inspired writings, leading me to conclude that while

all children may not be gifted (at least not in the strict sense of the word),

gifted education may, in fact, be good for all children.

Based on those initial experiences and subsequent observations, I would like to share 10 hall-marks of successful gifted-education programs that can make any school extraordinary.

Curriculum Compacting

In a conventional classroom, students often understand concepts and master skills long before they appear in the curriculum. Curriculum compacting eliminates work that has been previously mastered and/or streamlines content so students can master it at a pace commensurate with their ability. The time thus gained can be used for enriched learning experiences.

Compacting is a three-step process:

- 1. Assess and document what students already know about the material and what they need to learn.
- 2. Eliminate content that students have mastered and plan ways for them to learn the other essentials.
- 3. Use the time gained to enrich learning through special topics, personalized projects, and research experiences. Allowing students some choice regarding the use of time "bought" through prior mastery will motivate them for advanced learning.

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BY JOHN WESLEY TAYLOR V

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Advanced Enrichment

With time gained from curriculum compacting, you can introduce enrichment activities for many, if not all, students in your classroom. These activities may tie in directly with the regular curriculum or may branch out into new territory. After some or most of your students master the fundamental concepts and skills of a particular unit, move them into another area—such as archeology, scientific ethics, or parliamentary procedures—that is congruent with the subject area and allied to the students' interests and learning styles. Enrichment can also apply or creatively extend certain key ideas from the curriculum.

To stimulate your students to utilize advanced learning processes: (1) Emphasize problem-solving skills, inductive reasoning, and critical/creative thinking; (2) expose them to significant issues and unresolved problems in a particular area of study; or (3) have them consider things as they should or could be.

As a result of engaging in these advanced processes, your students should be encouraged to develop advanced products—tangible accomplishments that require thoughtful application and transformation of learning.

High-Level Thinking

All learners need to develop complex thinking skills and be stretched to think in more abstract and sophisticated ways. For this to happen, students need to progress from "knowing of" (remembering and recognizing) to "knowing about" (interpreting, explaining, and distinguishing), to "knowing how" (generalizing, applying, and innovating), and "knowing why" (comprehending cause/effect relationships, philosophical foundations, trends, and issues).

To promote high-level thinking, ask high-level questions that combine advanced knowledge and complex thinking requirements. Use open-ended questions without a single right/wrong answer. Require students to defend and substantiate their answers with logic and/or evidence.

Another way to extend your students' thinking is to ask them to describe an object or concept that they have been studying by *characterizing* it (using all their senses to paint the picture), by *comparing* it (What is it similar to or differ-

ent from?), associating it (What does it make them think of?), analyzing it (How is it put together?), applying it (What can you do with it?), or arguing for or against it (Take a stand, using any kind of reasoning.). Or have them illustrate, transform, question, solve, rearrange or satirize the idea.

Interdisciplinary Themes

Gifted programs often use interdisciplinary themes that emerge from various topics of study. As you explore the subject, ask students to make connections both within and beyond the particular discipline under study. For example, if the science class is studying environmental pollution, discuss relevant links with geography, history, math, and literature.

Or take a more proactive approach, identifying at the start a particular theme—such as conflict, community, or justice—that cuts across several disciplines, and develop it into an in-depth study of major ideas, principles, and perspectives in these disciplines.

Regardless of the route you take, it should integrate knowledge both within and across various systems of thought. An integrated thematic approach promotes wholistic intellectual growth.

Contact With Experts

You cannot be an expert in every area your students want to explore. However, you can be an excellent facilitator, putting your students in contact with experts in their areas of interest by:

- Helping your students contact various experts.
- Having students shadow a professional at work.
- Arranging for some of your students to attend a professional meeting, conference, or seminar; participate in a scientific expedition; or work with a community agency.

Another more permanent way for your students to make contact with ex-

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perts is through mentorships, apprenticeships, and internships. Research reveals that these programs enhance student self-confidence, encourage love of learning, develop leadership and social interaction skills, benefit career interests and awareness, and facilitate creative achievement. They often produce significant contributions to the community and long-term professional friendships. Choose internships and mentors with care, so as to reinforce the values the school wishes to convey.

Personalized Projects

In gifted education, personal projects allow for student choice within clearly established parameters. Student projects, however, can be a vital part of any learning experience. Such projects can tap into your students' interests and help them develop

their unique abilities.

These projects should meet certain criteria. First, brainstorm with your students about projects that will allow them to interact with real-world situations. Identify the type of final product that will be developed, its criteria of excellence, and the audience to whom it will be presented.

Before starting the project, set up an expected timeline, with the milestones clearly defined and dated. This helps students develop time-management skills, accountability, and independent thinking processes.

Research Encounters

A special form of the personalized project often utilized in gifted education is primary research in which students tackle real-world problems and become contributors to knowledge.

First, help your students identify a problem within a content area related to their interests and skills. Look for community problems pertaining to services and development, ecological concerns, or historical preservation issues.

Next, help your students clarify the

specific questions they wish to address. Have them propose the most plausible answers to these questions based on personal experience and/or popular belief. Next, have students identify information sources and effective ways to gather the data, such as direct observations, interviews, surveys, and/or the study of significant documents.

After students collect and classify data, they must analyze and summarize the information by calculating percentages and averages or by looking for themes and patterns. They should also prepare charts and graphs that illustrate the information they gathered.

Students should then interpret the findings, prepare a research report, and communicate the results of the study. Work closely with them as they state generalizations and attempt to answer the research questions. Finally, have them prepare an oral and/or written report on the research study, which should then be presented to an appropriate community or professional forum.

Learning Contracts

Learning contracts can be useful in many classroom situations. Well-designed contracts allow for advanced and extended study on topics of interest, encour-

Picture Removed aging originality and integrating relevant skills into high-interest tasks.

For a learning contract to be effective, certain conditions must be met. It should specify in writing (1) the purpose of the learning activity, (2) the resources needed, (3) the characteristics of the final product, (4) the target audience, and (5) beginning and ending dates and any interim conferences.

The contract should focus on concepts and themes, integrating only those skills and information actually required for the final product. Establish clear and rigorous standards of success and product excellence from the very beginning, rather than once the activities are underway.

When these conditions are satisfied, learning contracts become a dynamic means for fostering student interest, growth, and independence.

Issues and Dilemmas

Real-life problem-solving is an effective way for students to apply knowledge and develop thinking skills. There are five main steps in this process:

- 1. Problem-finding. First, help students take a candid look at some significant problem, perhaps in a particular discipline or in your community. Have them state the problem from different viewpoints.
- 2. *Fact-finding*. Ask students to identify what is actually known about the problem.
- 3. *Idea-finding*. Using logic or supposition, students are to generate related information. You might say something like this: "Now, if ABC is true, would XYZ also be true?"
- 4. Solution-finding. After examining the problem, have students brainstorm and propose multiple solutions. Then ask them to lay out the pros and cons of each potential solution. Ultimately, settle on a final solution—which may be a synthesis of a number of ideas.
- 5. Acceptance-finding. Finally, develop an action plan that outlines what must happen to implement the solution. You might also develop a timeline to help keep the action on track.

Another approach is to pose a dilemma that creates a genuine conflict for individuals. Once you have described an appropriate dilemma, perhaps from a news report, a political cartoon, or a letter to the editor, ask students to clearly restate it and take a tentative position. This, of course, will require time for reflection. Once students take personal positions, discuss them briefly and have each student clarify his or her view in writing. Then ask students to take an opposing position and argue its merits orally or in a position paper. Students can then present the dilemma to others, asking them to take a position and share their rationale. Throughout the activity, encourage students to keep an open mind and deeply explore the issues involved.

Learning Portfolios

You can tell whether learning has occured by looking at its products, including creative endeavors, and research experi-

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ences. These may take on a variety of formats—oral or written reports, stories or poems, charts, diagrams, illustrations, cartoons, models, audio-visual presentations, and the like.

Gifted programs often document these milestones in learning portfolios. What should be included in the portfolio? Standardized test scores, anecdotal records, and student work samples, as well as tangible evidence of

- *Unusual ideas:* unique or imaginative ways of doing something; improvising with commonplace materials; and creative forms of communication (speech, writing, drama, music, or art);
- *High-level thinking*: using complex logic; applying knowledge to new situations; and supporting ideas with quality evidence, examples, or explanations;
 - In-depth understanding: breadth and

depth of knowledge; ability to synthesize ideas and information from many sources; and the ability to solve difficult and sophisticated problems;

- Strong intrinsic motivation: personal initiative; powerful urge for self-improvement; extensiveness of exploratory behavior; enduring curiosity in a particular field; and perseverance on complicated tasks;
- Exceptional maturity: ability to structure ideas and situations; interest in "adult" issues; and advanced work beyond age/grade level that shows professional competencies.

For each item included in a portfolio, discuss together why that specific sample was chosen, what your student likes most about it, and how it makes him or her feel. Then, record in the portfolio log the date of the entry, a short description of the item, the name of the person who selected it, and a brief rationale for including the item. Overall, the learning portfolio should focus on strengths rather than deficiencies. It should paint a clear picture of your students' abilities and learning achievements.

Conclusion

Essentially, your role in each of these strategies is to facilitate learning. This means:

- Encouraging inquisitiveness, exploration, inventiveness, and originality.
- Valuing not only answers, but also questions.
- Providing real-life learning experiences requiring active participation.
- Setting up problems and posing issues, not simply handing out the answer.
- Allowing students to make their own (non-life-threatening) mistakes and arrive at personal solutions.

The student's role is equally important. He or she must shed the passive role of lesson-learner and performer-of-exercises, and adopt the more challenging role of investigator, inventor, and even instructor.

Some time ago, I came across a piece by Alan Glatthorn that aptly illustrates the possibilities that exist for making classrooms extraordinary places for learning.

What is the teacher? A guide, not a guard.

What is learning? A journey, not a destination.

What is discovery? Questioning the answer, not answering the question.

What is the process? Discovering ideas, not covering content.

What is the goal? Open minds, not closed issues.

What is the test? Being and becoming, not remembering and reviewing.

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