Why is it Important to Recognize All Gifted Students?
The gifted child whose learning needs are not met in school might:

- Resist doing work, or work in a sloppy, careless manner.
- Get frustrated with the pace of the class and what he perceives as inactivity or lack of progress.
- Ask embarrassing questions; demand good reasons for why things are done a certain way.
- Become impatient when not called on to respond; blurt out answers without raising hand.
- Become intolerant of imperfection in himself and in others.
- Become super-sensitive to any form of criticism; cry easily
- Become bossy with his peers and teachers.
- Rebel against routine and predictability.
- Refuse to conform.
- Resist cooperative learning.
- Resist taking direction or orders.
- Act out or disturb others.
- Become the "class clown."
- Monopolize class discussions.
- Daydream

Intellectual Characteristics of the Gifted

- Exceptional reasoning ability
- Intellectual curiosity
- Rapid learning rate
- Facility with abstraction
- Complex thought processes
- Vivid imagination
- Early moral concern
- Passion for learning
- Powers of concentration
- Analytical thinking
- Divergent thinking/creativity
- Keen sense of justice
- Capacity for reflection
Personality Characteristics of the Gifted

- Insightfulness
- Need to understand
- Need for mental stimulation
- Perfectionism
- Need for precision/logic
- Excellent sense of humor
- Sensitivity/empathy
- Intensity
- Perseverance
- Acute self-awareness
- Nonconformity
- Questioning of rules/authority
- Tendency toward introversion

Non-Intellective Factors in Gifted Children

Gifted Children ...

- Don't follow the rules.
- Tend to be domineering.
- Are argumentative.
- Tend to tune out.
- Are excessively competitive.
- Have a tendency toward tunnel vision.
- Have a sense of overexcitability.
- Have a sharp sense of humor.
- Are often compulsive collectors.
  (Tannenbaum)

Factors that Might Disguise Giftedness

- Disruptive behavior
- Negative attitude
- A significant learning weakness
- Poor student/teacher match
- Lack of effort
- Cultural factors
- Poverty
How to Spot a Gifted Student

The Gifted Student
- Asks many questions and is very curious
- Possesses a large amount of information
- Has a good memory

But...
- Easily gets "off task" and "off topic"
- Is impatient when not called on in class

The Gifted Student
- Learns new information quickly
- Retains information easily
- Masters reading skills earlier
- Demonstrates strong abilities in math
- Displays unusual academic achievement
- Finishes classwork quickly

But...
- Is easily bored
- Can become disruptive in class
- Shows strong resistance to repetitive activities and memorization
- Completes work quickly but sloppily

The Gifted Student
- Is interested in many things
- Becomes involved in a variety of activities
- Is motivated to try new things
- Enjoys a challenge

But...
- May resist working on activities apart from areas of interest
- Leaves projects unfinished
- Takes on too much and becomes overwhelmed

The Gifted Student
- Thinks independently
- Expresses unique and original opinions
- Is self-motivated

But...
- Challenges authority
- Does not handle criticism well
- Does not work well in groups

The Gifted Student
- Uses higher level thinking skills (analysis, synthesis, evaluation)
- Makes connections other students don’t see
- Considers unusual approaches to problem solving

But...
- Tends to be absent-minded regarding practical details
- Forgets homework assignments

The Gifted Student
- Has a strong sense of justice
- Likes to debate current issues and real life problems

But...
- Can be very critical of self and others
- Likes to argue a point
- Is a perfectionist and expects others to be perfect as well

The Gifted Student
- Has a sophisticated sense of humor
- Understands subtle humor
- Enjoys plays on words and satire

But...
- Easily gets carried away with a joke
- Has a tendency to become the “class clown”

The Gifted Student
- Demonstrates strong expressive skills
- Is sensitive to feelings of others
- Elaborates on ideas
- Shows skill in drama/art/music/language

But...
- Sometimes perceived as “know-it-all” by peers
- Is sometimes “bossy” to peers in group situations

(Adapted from the Network for Instructional TV. Working with Gifted and Talented Students)
Twice Exceptional Students

Students with Learning Disabilities (LD)

Students with learning disabilities may demonstrate one or more of these learning challenges:

- On tests of ability, there is a significant discrepancy between verbal and nonverbal subtests.
- Their lack of self-confidence may manifest itself with stubbornness or other behaviors designed to distract others from their inadequacies.
- They have large vocabularies, but may be deficient in the subtleties of language.
- They may be reading significantly below grade level, but have a large storehouse of information.
- They have the ability to express themselves verbally, but not in writing.
- They may excel at abstract reasoning but seem unable to remember small details.
- They may seem bright and motivated outside of school but have difficulty with traditional school tasks.
- Their slow reaction speed may result in incomplete work and low test scores on timed tests.
- They may lack effective organization and study skills.

Students with Attention Deficit Hyperactivity Disorder (ADHD)

Students with ADHD tend to:

- Appear completely disorganized and forgetful and frequently losing things.
- Pay little or no attention to details; make careless mistakes.
- Leave their seat without permission.
- Have difficulty listening, following directions, and completing tasks or chores.
- Seem unaware of the risks or consequences of their actions.
- Lack social interaction skills.
- Blurt or talk excessively.
- Have trouble sharing.
- Be easily distractible.

Students with Asperger's Syndrome

Children with Asperger's Syndrome tend to:

- Exhibit repetitive motor mannerisms, which may lead to a misdiagnosis of Tourette's Syndrome.
- Have an unusual but passionate interest in one topic.
- Have trouble forming relationships with peers.
- Appear to lack enjoyment in certain situations.
- Avoid direct eye contact with others.
- Have monotonous speech patterns.
- Be unable to engage in small talk.
- Lack empathy for others.

(Adapted from Winebrenner. Teaching Gifted Kids in the Regular Classroom)
Famous People Who are/were Twice-Exceptional

Albert Einstein did not speak until the age of three. Even as an adult Einstein found that searching for words was laborious. He found schoolwork, especially math, difficult and was unable to express himself in written language. He was thought to be simple minded (retarded), until it was realized that he was able to achieve by visualizing rather than by the use of language. His work on relativity, which revolutionized modern physics, was created in his spare time.

Thomas Alva Edison was unable to read until he was twelve years old and his writing skills were poor throughout his life.

George Washington was unable to spell throughout his life and his grammar usage was very poor. His brother suggested that perhaps surveying in the backwoods might be an appropriate career for young George.

Leonardo Da Vinci was fascinated with levers and gears--so much so that they were at the heart of nearly all his inventions--from the crane to the helicopter. It is also believed that he struggled with dyslexia.

Walt Disney, the creator of Mickey Mouse, recipient of 32 personal Academy Awards for his animated features and founder of the Disney Empire struggled with a learning disability.

Tom Cruise is unable to read even today due to severe dyslexia, he never even finished High School. He has thought, the ability to memorize his lines and perform on both the stage and screen

Henry Winkler (actor, director, producer) As a child was called stupid and lazy in the classroom. Bottom 3% in country, in math, he was thought to have ADD, he once said "It is not easy to compete when you have LD, but it is possible."

Harry Andersen (TV actor, played Judge Stone on Night Court) Has ADD and managed to con and charm his way through school he had extraordinary memory and could remember anything at 16. Valedictorian but he could barely read to rehearse his lines.

Robin Williams the actor/comedian has been diagnosed with ADHD

Magic Johnson (basketball player) Has a reading problem, "It's a bad feeling, a lonely feeling." "You've got to take whatever means are necessary to enhance your skills. Then once you've conquered it, once you have met the challenge, teach back and help the next guy, because that is what it is all about"

Bruce Jenner (Olympic decathlon champ) barely got through school, diagnosed as a dyslexic (sports gave him better self-esteem) he found that through sports he could hold his head up with friends and feel good about himself.

Although known for his voice, James Earl Jones was born with a stuttering problem that made him very self-conscious, and he was almost mute until the age of 15. A high school teacher discovered Jones had a gift for writing poetry, thought forcing public speaking would help him out of his silence and insisted that he recite a poem to the class each day. Jones claims that he still stutters sometimes (it doesn't bother him anymore) but was mostly cured by being forced to speak to an audience.

Some people claim that Bill Gates, chairman of Microsoft Corp. and the richest person on earth, displays many characteristics of Asperger’s Syndrome. They say that he is famously negligent about his personal appearance and schedule and that he has the autistic behavior of compulsively rocking in his chair, which reportedly began early in his childhood. He is also regarded as one of the smartest people in American industry.

Underachievers

Factors that might contribute to underachievement:

- The perception that what they are learning does not have any meaningful, relevant, and/or useful real-life application.
- The lack of opportunity to demonstrate what they know in their learning style strength.
- The lack of dreams or goals, or the sense that their dreams or goals are unattainable.
- The lack of opportunity to learn about areas of passionate interest to them.
- Family interaction patterns that may interfere with achievement.
- Fears of being rejected for being different.
- Work that is too easy or too difficult.
- Fear of trying hard and then failing.
- Perfectionism.

(Winebrenner. Teaching Gifted Kids in the Regular Classroom)

Students from Diverse Population

There are four key reasons that gifted students from diverse population go unidentified:

1. Most teachers don’t know how to notice and identify characteristics of giftedness in every student population
2. The tests use language and idioms with which many of these children might not be familiar.
3. Many of these children attend schools in which gifted education is not a priority
4. Many standardized tests are culturally biased.

(Winebrenner. Teaching Gifted Kids in the Regular Classroom)

Environmental Variables

- Lack of preschool/kindergarten experience
- Irregular attendance
- High mobility
- Limited home enrichment opportunities
- At home distractors
- Limited financial resources
- Home language other than English
- Limited home/school communication
- Cultural values differ from those of prevailing culture
- Limited experience of prevailing culture

(Oceanside Unified School District. Gifted and Talented Education)
This should be done as a free association, very rapidly. Will you please take a few minutes to write in the first name of children whose names come into your mind first as you look at the items below? You need not fill every space. Please use first name and last initial if you have two students in your class with the same first name.

When compared with other children in the kindergarten, which of you pupils possess, to a marked degree, some of the following characteristics? Be particularly observant of the youngest children in the class. Do not exclude any child because of speech defect. Thank you very much.

1. Has unusually good vocabulary

2. Has ideas which are often very original in one or more areas (i.e., block play, free activities, art, rhythms, sharing)

3. Is alert, keenly observant, responds quickly

4. Has an unusually good memory

5. Has a long attention span

6. Recognizes, on his/her own, some words in books on the browsing table

7. Uses longer sentences

8. Reasons things out, thinks clearly, recognized relationships, comprehends meanings

9. Is curious about many activities and places outside immediate environment and/or experience -

10. Is a lender in several kinds of activities. Is able to influence others to work toward desirable goals

11. Has outstanding talent in a special area(s) such as art, music, rhythms, dramatics (indicate area(s) of talent)

School: _______________
Teacher: _______________
Grade Level: ____________
Date: ________________

(Adapted from Martinson. The Identification of the Gifted and Talented)
GATE Prescreening Form

Purpose: The intent of this form is to facilitate school-wide GATE identification by providing teachers and other educators:

- An Opportunity to brainstorm as to all those students who stand out for any reason, in order to perhaps capture exceptionality in students traditionally overlooked.

- A streamlined list of attributes which both crosses characteristics of giftedness, and assists in viewing exceptionality in a different fashion.

- A manageable system for differentiating students (top 1%, 5%, 20%) prior to beginning a formal portfolio and looking at the complex variables for background intelligence and achievement prior to the more detailed task of portfolio development.

Which students capture your attention?
(for any reason?)

Using the scale at the bottom of the page, rate each student according to the following characteristics:

<table>
<thead>
<tr>
<th>Student's Names</th>
<th>1. Extends qualitatively beyond the given assignment.</th>
<th>2. Generalizes information into other subject areas.</th>
<th>3. Demonstrates unique perceptions.</th>
<th>4. Displays extraordinary talents, achievements, OR fund of knowledge.</th>
<th>5. Shows insatiable curiosity, intellectual interest, self-motivation OR self-direction.</th>
<th>6.</th>
</tr>
</thead>
</table>

RATING SCALE: Considering all the students with whom you've worked, is the student:
(leave blank if none apply)
1 - In the top 1%
2 - In the top 5%
3 - In the top 20%

* Begin a portfolio for each student for whom the profile above indicates the potential for exceptional functioning. Keep in mind social or environmental variables which may affect his/her performance.

(Adapted from Oceanside Unified School District. Gifted and Talented Education)
Individual Portfolio

Give specific examples of...

Characteristics

- Potential for extraordinary intellectual development
- Creative thinking ability
- Potential for extraordinary development in the arts
- Insatiable intellectual interests
- Abstract reasoning ability beyond age expectations
- Capacity for self-direction and task commitment
- Leadership ability
- Capacity for exceptionally high academic achievement

Social/Environmental Variables

- Environmental
- Economic
- Language
- Cultural
- Social/Emotional
- Health
- Special Programs

(Adapted from Oceanside Unified School District. Gifted and Talented Education)
The Schoolwide Enrichment Model (SEM)

The SEM has three components:
1. The total Talent Portfolio – individual portfolios for talent development in each child focusing on abilities, interests, and learning styles.
2. Curriculum modifications – including curriculum compacting, textbook analysis, and curriculum mapping; and expanding the depth and peace of learning.
3. Enrichment Teaching and Learning – considering the uniqueness of each learner and the enjoyment of learning experiences including enrichment opportunities like those described in the Enrichment Triad Model.

The Enrichment Triad Model
A model designed to encourage creative productivity in young people. It includes three types of enrichment:
Type I: Designed to expose students to a wide variety of disciplines, topics, occupations, hobbies, persons, places, and events that would not ordinarily be covered in the regular curriculum.
Type II: Consists of materials and methods designed to promote the development of thinking and feeling processes, including general training (i.e., creative thinking, problem solving, learning how to learn, and advanced reference and communication skills) and advanced training developed to meet the specific needs of a child as they specialize.
Type III: Students pursue a self-selected area in depth.

Enrichment Clusters
Enrichment clusters are non-graded groups of students who share common interests and who come together to pursue these interests during specially designated times. Facilitators use three questions to guide learning:
- What do people with an interest in this area do?
- What knowledge, materials, and other resources are needed to produce student generated products or services in this area?
- In what ways can the products or services affect an intended audience?

Steps in Planning Enrichment Clusters:
1. Introduce the concept to the staff, and discuss concerns, and interests.
2. Schedule a time for the enrichment clusters (once a week for 5-10 weeks)
3. Administer a formal assessment of student interest.
4. Recruit experts/hobbyists within the school and community to facilitate enrichment groups.
5. Create a brochure and registration form describing the clusters.
6. Have each student choose three groups they would enjoy participating in.
7. Assign students to clusters.
8. Share products and services.
9. Collect feedback from students, teachers and parents.

Popular Cluster Themes
- Life Undersea
- Paleontologists
- Young Artists
- NASA
- Young Firefighters
- Wildlife Biologists
- Invention Convention
- The Police Academy
- Puppeteers workshop
- Ukrainian Artist Guild
- Computer Connections
- Horticulture Alliance
- Sign Language Guild
- Multicultural Society
- Animal Trainers
- Young Aviators

(Adapted from Gentry, Moran & Reis. Expanding Enrichment Program Opportunities to all Children)
### Depth and Complexity Icons

<table>
<thead>
<tr>
<th>Depth</th>
<th>Language of disciplines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Specialized vocabulary/terminology</td>
</tr>
<tr>
<td></td>
<td>□ Abbreviations/acronyms</td>
</tr>
<tr>
<td></td>
<td>□ Symbols/icons</td>
</tr>
<tr>
<td></td>
<td>□ Tools/special skills/tasks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Parts</td>
<td></td>
</tr>
<tr>
<td>□ Factors</td>
<td></td>
</tr>
<tr>
<td>□ Attributes</td>
<td></td>
</tr>
<tr>
<td>□ Variables</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patterns</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Repetition</td>
<td></td>
</tr>
<tr>
<td>□ Predictability</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trends</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Influence</td>
<td></td>
</tr>
<tr>
<td>□ Forces</td>
<td></td>
</tr>
<tr>
<td>□ Direction</td>
<td></td>
</tr>
<tr>
<td>□ Course of action</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unanswered questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Discrepancies</td>
<td></td>
</tr>
<tr>
<td>□ Missing parts</td>
<td></td>
</tr>
<tr>
<td>□ Unclear ideas</td>
<td></td>
</tr>
<tr>
<td>□ Incomplete ideas</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rules</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Structure</td>
<td></td>
</tr>
<tr>
<td>□ Order</td>
<td></td>
</tr>
<tr>
<td>□ Hierarchy</td>
<td></td>
</tr>
<tr>
<td>□ Explanation “...because”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Points of view</td>
<td></td>
</tr>
<tr>
<td>□ Different opinions</td>
<td></td>
</tr>
<tr>
<td>□ Judging</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big Ideas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Generalization</td>
<td></td>
</tr>
<tr>
<td>□ Principle</td>
<td></td>
</tr>
<tr>
<td>□ Theory</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Changes Over Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Connecting points in time</td>
</tr>
<tr>
<td></td>
<td>□ Within a time period</td>
</tr>
<tr>
<td></td>
<td>□ Predictions based on relationships</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Different Perspectives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Multiple perspectives</td>
<td></td>
</tr>
<tr>
<td>□ Opposing viewpoints</td>
<td></td>
</tr>
<tr>
<td>□ Different roles &amp; Knowledge</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Across disciplines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Between disciplines</td>
<td></td>
</tr>
<tr>
<td>□ Across disciplines</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Gould, & Kaplan. Depth and Complexity Icon Cards)
Content or Area of Focus

(Adapted from Gould & Kaplan. Frames: Differentiating the Core)
Independent Study
(Adapted from Gould & Kaplan. Independent Study)

Steps involved in an independent study:
- Survey for interests, possible topics.
- Select a topic.
- Refine, focus your topic.
- Develop a task statement.
- Locate information sources (resources, references).
- Gather Information.
- Organize information.
- Make a product or plan how to share what you learned
- Evaluate your study.

Rules for Successful Independent Studies
- Schedule Independent Study time several times a week for about three weeks.
- Focus on the process, not the product.
- Allow students to work at their own pace.
- Monitor progress at the end of each session.
- Allow students to present their products when completed, and then start a new project.
- All students must be working during the Independent Study time.

(Hazelton. Practical Applications for Implementing Depth and Complexity)

Possible Products

<table>
<thead>
<tr>
<th>Advertisement</th>
<th>Crossword puzzle</th>
<th>Journal</th>
<th>Oral report</th>
<th>Set design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animation</td>
<td>Dance</td>
<td>Landscape design</td>
<td>Overhead</td>
<td>Short story</td>
</tr>
<tr>
<td>Annotated bibliography</td>
<td>Debate</td>
<td>Large-scale drawing</td>
<td>Transparency</td>
<td>Silk screening</td>
</tr>
<tr>
<td>Art gallery</td>
<td>Diary</td>
<td>Lecture</td>
<td>Pamphlet</td>
<td>Simulation</td>
</tr>
<tr>
<td>Audiotape</td>
<td>Dictionary</td>
<td>Lessson</td>
<td>Pantomime</td>
<td>Skit</td>
</tr>
<tr>
<td>Batik</td>
<td>Diorama</td>
<td>Letter</td>
<td>Paper weight</td>
<td>Slide/tape</td>
</tr>
<tr>
<td>Biography</td>
<td>Display</td>
<td>Letter to the editor</td>
<td>Pattern</td>
<td>presentation</td>
</tr>
<tr>
<td>Blueprint</td>
<td>Dramatic monologue</td>
<td>Limerick</td>
<td>Photo essay</td>
<td>Small-scale model</td>
</tr>
<tr>
<td>Board game</td>
<td>Editorial</td>
<td>Line drawing</td>
<td>Play</td>
<td>Social action plan</td>
</tr>
<tr>
<td>Book jacket</td>
<td>Elegy</td>
<td>Magazine</td>
<td>Picture dictionary</td>
<td>Song</td>
</tr>
<tr>
<td>Bulletin board</td>
<td>Essay</td>
<td>Magazine article</td>
<td>Poem</td>
<td>Sonnet</td>
</tr>
<tr>
<td>CD disc</td>
<td>Etching</td>
<td>Map</td>
<td>Portfolio</td>
<td>Stitchery</td>
</tr>
<tr>
<td>Calendar</td>
<td>Experiment</td>
<td>Maze</td>
<td>Poster</td>
<td>Survey</td>
</tr>
<tr>
<td>Campaign</td>
<td>Fable</td>
<td>Memorial</td>
<td>Puppet</td>
<td></td>
</tr>
<tr>
<td>Card game</td>
<td>Fact file</td>
<td>Mobile</td>
<td>Product packaging</td>
<td></td>
</tr>
<tr>
<td>Ceramics</td>
<td>Fairy tale</td>
<td>Monograph</td>
<td>Puppet</td>
<td>Terrarium</td>
</tr>
<tr>
<td>Charcoal sketch</td>
<td>Family tree</td>
<td>Montage</td>
<td>Puppet show</td>
<td>Textbook</td>
</tr>
<tr>
<td>Chart</td>
<td>Festival</td>
<td>Movie</td>
<td>Radio show</td>
<td>Timeline</td>
</tr>
<tr>
<td>Choral reading</td>
<td>Filmstrip</td>
<td>Mural</td>
<td>Relief map</td>
<td>TV documentary</td>
</tr>
<tr>
<td>Collage</td>
<td>Glossary</td>
<td>Museum exhibit</td>
<td>Research report</td>
<td>TV newscast</td>
</tr>
<tr>
<td>Collection</td>
<td>Graph</td>
<td>Musical composition</td>
<td>Rubbing</td>
<td>Video</td>
</tr>
<tr>
<td>Comic strip</td>
<td>Greeting card</td>
<td>News report</td>
<td>Sand-casting</td>
<td>Video game</td>
</tr>
<tr>
<td>Computer game</td>
<td>Guest speaker</td>
<td>Newspaper</td>
<td>Science fiction</td>
<td>Vocabulary list</td>
</tr>
<tr>
<td>Computer program</td>
<td>Haiku</td>
<td>Observation log</td>
<td>Story</td>
<td>Weather instrument</td>
</tr>
<tr>
<td>Costume</td>
<td>HyperCard stack</td>
<td>Oil painting</td>
<td>Scrapbook</td>
<td>Weather log</td>
</tr>
<tr>
<td>Costume design</td>
<td>Illustrated story</td>
<td>Oral painting</td>
<td>Sculpture</td>
<td>Wrapping paper</td>
</tr>
</tbody>
</table>

Teaching the Gifted    Page 13 of 28
**Differentiation**

Differentiation means providing gifted students with different tasks and activities than their age peers - tasks that lead to real learning for them. There are five elements to differentiation:

- **Content** - Use of more advanced, complex texts and resource materials, compacting, learning contracts, etc.
- **Process** - The methods students use to make sense of concepts, generalizations, and standards.
- **Product** - The ways in which students choose to illustrate and demonstrate their understanding of the content and process.
- **Environment** - The actual physical setting where learning takes place as well as the working conditions.
- **Assessment** - The method used to document mastery of curriculum.

(Weinbrenner. *Teaching Gifted Kids in the Regular Classroom*)

**Differentiation Practices for the Regular Classroom**

**Flexible Grouping** - students are matched to skills work by virtue of readiness and growth. Movement is common. Frees teacher to work with smaller groups.

**Interest Centers** - to provide enrichment for students who demonstrate mastery of required work. Vehicle to provide meaningful study in depth.

**Tiered Assignments** - Using Different novels of the same genre and subject area. Products and assignments are open-ended. Students transform ideas rather than reproduce ideas.

**Tic Tac Toe** - Designed to cover high-level skills and enrich the topic for students who complete required work.

**Questioning** - Teacher varies the level of questioning in discussions and on tests to challenge thinking and understanding.

**Independent Study** - Student selects a topic of study, forms hypothesis, makes a timeline and chooses a product. Allows for long term in depth work.

**Compacting** - 3 steps - Assess for mastery, - plan for learning and excuses student from work - plans for accelerated or enriched study.

(Hazelton. *Practical Applications for Implementing Depth and Complexity*)

**Compacting Curriculum**

Compacting the curriculum is a method of enabling students to avoid re-learning things that they already know. There are five steps to successful compacting:

- Identify the learning objectives or standards all students must learn.
- Offer a pretest opportunity to volunteers who think they may have already mastered the content, or plan an alternate path through the content for those students who can learn the required material in less time than their age peers.
- Plan and offer curriculum extensions for kids who are successful with the compacting opportunities.
- Eliminate all drill, practice, review, or preparation for state or standardized tests for students who have already mastered such things.
- Keep accurate records of students' compacting activities.

(Weinbrenner. *Teaching Gifted Kids in the Regular Classroom*)
Assessment of Gifted Student Characteristics and Needs

In the process of curriculum planning, the Summary of Characteristics of Gifted Children and Their Implications for Curriculum Modifications can be used to determine the needs for curriculum modification of an individual student or groups of students.

The list of characteristics, taken from the Renzulli/Gartman Scales for Rating the Behavioral Characteristics of Superior Students, appears here, as presented by June Maker, on a matrix with the curriculum modifications considered necessary to the development of gifted students. (See pages 19-20 for definitions of these areas of curriculum modification.) Reading across the chart, the X's beside each characteristic indicate the modifications required for individuals who possess that trait or behavior.

Because gifted students vary in the number and clusters of characteristics they possess, it is necessary for effective planning and teaching to do an assessment of each new group of students. Here is one way such an assessment might be done:

1. Reading down the list, put a checkmark in the left margin beside any characteristic which applies to your group of students.

2. Read down the list again, paying particular attention to the characteristics not checked the first time. With a different color pen or pencil, write student names beside any characteristics possessed by only one or two students.

3. For each characteristic you checked in step 1, color in all the boxes with X's across the page.

4. With the different color, do the same for all characteristics beside which you've written student names.

5. For each column, add up the total number of colored boxes. Compare the total to the number of X's in the column and express the comparison as a ratio. (Ex.: There are 11 X's in the Abstractness column. If you colored 10 of them, your ratio would be 10/11)

6. Choose your areas of curriculum modification emphasis by focusing on those with the highest ratios. The color coding will allow you to focus on needs of individuals where they differ from the group.

7. The chart on page 21 will help you choose the strategies you can use to incorporate the modifications in your teaching. The shading shows which modifications each strategy provides. You may want to add other strategies to the chart. The definitions on 19-20 will help you.

(Adapted from J. Maker, Curriculum Development for the Gifted.)
### Summary of Characteristics of Gifted Children and Their Implications for Curriculum Modifications

(Adapted from J. Maker, *Curriculum Development for the Gifted*.)

**Child Characteristics and Probable Social Roles**

<table>
<thead>
<tr>
<th>Learning</th>
<th>Content</th>
<th>Process/Method</th>
<th>Product</th>
<th>Learning Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abstractness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Complexity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Study of People</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Higher Level Thought</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Open-Endedness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proof/Reasoning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freedom of Choice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group Interaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pacing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real Audiences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transformation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student Centered</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Encourages Independence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Openness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Accepting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Complex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High Mobility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Learning
- Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency
  - Abstractness: X
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Possesses a large storehouse of information about a variety of topics (beyond the usual interests of youngsters his age).
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Has quick mastery and recall of factual information.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Has rapid insight into cause-effect relationships, tries to discover the how and why of things; ask many provocative questions (as distinct from informational or factual questions); wants to know what makes things (or people) "tick."
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things; looks for similarities and differences in events, people, and things.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Is a keen and alert observer; usually "sees more" or "gets more" out of a story, film, etc., than others.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Reads a great deal on his own; usually prefers adult level books; does not avoid difficult material; may show a preference for biography, autobiography, encyclopedias, and atlases.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Tries to understand complicated material by separating it into its respective parts; reasons things out for himself; sees logical and common sense answers.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

#### Motivation
- Becomes absorbed and truly involved in certain topics or problems; is persistent in seeking task completion. (It is sometimes difficult to get him to move on to another topic.)
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Is easily bored with routine tasks.
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:

- Needs little external motivation to follow through in work that initially excites him
  - Abstractness:
  - Complexity:
  - Variety:
  - Organization:
  - Economy:
  - Study of People:
  - Higher Level Thought:
  - Open-Endedness:
  - Discovery:
  - Proof/Reasoning:
  - Freedom of Choice:
  - Group Interaction:
  - Pacing:
  - Real Problems:
  - Real Audiences:
  - Transformation:
  - Student Centered:
  - Encourages Independence:
  - Openness:
  - Accepting:
  - Complex:
  - High Mobility:
### Summary of Characteristics of Gifted Children and Their Implications for Curriculum Modifications

(Adapted from J. Maker, *Curriculum Development for the Gifted*.)

#### Child Characteristics and Probable Social Roles

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Content</th>
<th>Process/Method</th>
<th>Product</th>
<th>Learning Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strives toward perfection; is self-critical; is not easily satisfied with his own speed or products.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Prefers to work independently; requires little direction from teachers.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is interested in many “adult” problems such as religion, politics, sex, race – more than usual for age level.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Often is self-assertive (sometimes even aggressive); stubborn in his beliefs.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Likes to organize and bring structure to things, people, and situations.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is quite concerned with right and wrong, good and bad; often evaluates and passes judgment on events, people, and things.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

#### Creativity

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Content</th>
<th>Process/Method</th>
<th>Product</th>
<th>Learning Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displays a great deal of curiosity about many things; is constantly asking questions about anything and everything.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Generates a large number of ideas of solutions to problems and questions; often offers unusual (“way out”), unique, clever responses.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is uninhibited in expressions of opinion; is sometimes radical and spirited in disagreement; is tenacious.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is a high risk taker; is adventurous and speculative.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Displays a good deal of intellectual playfulness; fantasizes, imagines (“I wonder what would happen if …”), manipulates ideas (changes, elaborates upon them); is often concerned with adapting, improving and modifying institutions, objects and systems.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Displays a keen sense of humor and sees humor in situations that may not appear to be humorous to others.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is usually aware of his impulses and more open to the irrational in himself (freer expression of feminine interest for boys, greater than usual amount of independence for girls); shows emotional sensitivity.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
### Summary of Characteristics of Gifted Children and Their Implications for Curriculum Modifications

(Adapted from J. Maker, *Curriculum Development for the Gifted*.)

<table>
<thead>
<tr>
<th>Child Characteristics and Probable Social Roles</th>
<th>Content</th>
<th>Process/Method</th>
<th>Product</th>
<th>Learning Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is sensitive to beauty; attends to aesthetic characteristics of things.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X X X</td>
</tr>
<tr>
<td>Is nonconforming; accepts disorder; is not interested in details; is individualistic; does not fear being different.</td>
<td></td>
<td>X X</td>
<td>X X</td>
<td>X X X</td>
</tr>
<tr>
<td>Criticizes constructively; is unwilling to accept authoritarian pronouncements without critical examination.</td>
<td>X X X</td>
<td>X</td>
<td>X</td>
<td>X X X X X</td>
</tr>
</tbody>
</table>

#### Leadership

Carries responsibility well; can be counted on to do what has been promised and usually does it well.

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is self-confident with children his own age as well as adults; seems comfortable when asked to show his work to the class.</td>
<td></td>
<td>X X</td>
<td>X X</td>
<td>X X X</td>
</tr>
<tr>
<td>Seems to be well liked by classmates.</td>
<td>X</td>
<td>X</td>
<td>X X</td>
<td></td>
</tr>
<tr>
<td>Is cooperative with teacher and classmates; tends to avoid bickering, and is generally easy to get along with.</td>
<td></td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can express self well; has good verbal facility and is usually understood.</td>
<td>X</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adapts readily to new situations; is flexible in thought and action and does not seem disturbed when the normal routine is changed.</td>
<td>X X</td>
<td>X X X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems to enjoy being around other people; is sociable and prefers not to be alone.</td>
<td>X</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tends to dominate others when they are around; generally directs the activity in which he is involved.</td>
<td>X</td>
<td>X X X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in most social activities connected with the school; can be counted on to be there if anyone is.</td>
<td></td>
<td>X X X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Excels in athletic activities; is well coordinated and enjoys all sorts of athletic games.</td>
<td></td>
<td>X X X X X X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Probable Roles

<table>
<thead>
<tr>
<th></th>
<th>Total in Category</th>
<th>Scholar</th>
<th>Leader</th>
<th>Creator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11 9 14 6 4 6 16 13 9 11 11 6 3 8 9 12 10 24 28 23 16 18 16</td>
<td>X X X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
<td>X X X X X X X X X X X X X X</td>
</tr>
</tbody>
</table>
Areas for GATE Curriculum Modification

**Content:** ideas, concepts, descriptive information and facts presented to the student in a variety of forms.

**Content Modifications**

**Abstractness:** The main focus of discussions, presentations, materials and study should be on concepts and generalizations that transfer within and across disciplines. Facts and concrete information are intended as examples or illustrations of the abstract ideas.

**Complexity:** The abstract ideas presented should be as complex as possible as determined by the number and complexity of concepts involved, the number and complexity of relationships between concepts, and the number and diversity of disciplines that must be understood to comprehend the idea.

**Variety:** Variety means enrichment, inclusion of ideas and content areas not taught in the regular curriculum.

**Organization and Economy:** Because knowledge is increasing and changing rapidly and students’ time in school is limited, every learning experience should be the most valuable possible. Economy requires organization of content around key concepts or ideas to facilitate transfer of learning, memory, and understanding of abstract concepts and generalizations.

**Study of People:** Gifted students need to study creative and productive individuals to enhance their potential for learning to deal with their own talents and possible successes.

**Study of Methods:** Gifted students should study the methods of inquiry used by scholars in different disciplines and should practice using these methods, learning a variety of techniques.

**Process:** the way new material is presented, the activities in which students engage, the questions that are asked, teaching methods and the thinking processes developed in the students.

**Process Modifications**

**Higher Levels of Thinking:** The methods used should stress use rather than acquisition of information; students should apply information to new situations, use it to develop new ideas, evaluate its appropriateness, and use it to develop new products.

**Open-endedness:** Activities should include a greater percentage of open activities – those for which there is no predetermined right answer and which stimulate further thinking and investigation.

**Discovery:** Activities should include a greater percentage of situations in which students use their inductive reasoning processes to discover patterns, ideas, and underlying principles.

**Evidence of Reasoning:** Students should be asked to express not only their conclusions but the reasoning that led to them.

**Freedom of Choice:** Increase students’ interest in learning by giving them, when possible, freedom to choose what to investigate and how to study.

**Group Interaction Activities and Simulations:** Structured group activities and simulations help students develop social and leadership skills when they include following a set of rules, interacting with a small group of students, peer evaluation, and self critique.

**Pacing and Variety:** Rapid pacing, when appropriate, in presenting new material and use of variety of methods maintains students’ interest and accommodates different learning styles.

(Adapted from J. Maker, *Curriculum Development for the Gifted*.)

Teaching the Gifted

Meeting Intellectual Needs

Page 19 of 28
Areas for GATE Curriculum Modification

**Product:** the results of student interaction with content resembling, for gifted students, those developed by professionals in the discipline being studied.

**Product Modifications**

**Real Problems:** The products developed by gifted students should address problems that are real to them.

**Real Audiences:** To the extent possible, products developed by gifted students should be addressed to real audiences (i.e., scientific community, city council, governmental agency, etc.) or a simulated audience or other students.

**Evaluation:** Products of gifted students should be evaluated by appropriate audiences, including simulated audiences of peers. Students' self-evaluation of their own products should also be encouraged.

**Transformation:** Student Products should represent original work or transformations of existing data rather than summaries of other people's conclusions.

**Learning Environment:** The physical setting and psychological climate in which learning takes place.

**Learning Environment Modifications**

**Student-Centered versus Teacher-Centered:** The environment should include a focus on students' ideas and interests rather than on those of the teacher, including and emphasis on student discussions rather than on teacher talk.

**Independence versus Dependence:** There should be a focus on encouragement of student initiative, having students solve their own problems rather than having the teacher solve all the problems.

**Open versus Closed:** The physical environment needs to be open to permit new people, materials, and things to enter. The psychological environment must permit new ideas, exploratory discussions, and the freedom to change directions to meet new situations.

**Accepting versus Judging:** The environment should be one in which attempts are made to understand students' ideas, evaluation is timed to occur at the appropriate stage of problem solving, and ideas are evaluated rather than judged.

**Complex versus Simple:** The physical environment should include a variety of materials, references, books, and other elements. The psychological environment should include challenging tasks, complex ideas, and sophisticated methods.

**High Mobility versus Low Mobility:** The environment must allow movement in and out of the classroom, different grouping arrangements, access to different environments, materials, and equipment.

(Adapted from J. Maker, *Curriculum Development for the Gifted.*)
Teaching/Learning Strategies and Their Implications for Curriculum Modifications

<table>
<thead>
<tr>
<th>Content</th>
<th>Bloom</th>
<th>Taba</th>
<th>Parnes</th>
<th>Kohlberg</th>
<th>Krathwohl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstractness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study of People</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process/Method</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Level Thought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open-Endedness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proof/Reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freedom of Choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Audiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Centered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourages Independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Mobility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is a grid for your reference, or some teaching/learning strategies and their implications for curriculum modifications for gifted students. The blank spaces are for you to graph in other strategies.

(Adapted from J. Maker, *Curriculum Development for the Gifted*.)
Benjamin Bloom created this taxonomy for categorizing level of abstraction of questions that commonly occur in educational settings. The taxonomy provides a useful structure in which to categorize test questions, since professors will characteristically ask questions within particular levels, and if you can determine the levels of questions that will appear on your exams, you will be able to study using appropriate strategies.

<table>
<thead>
<tr>
<th>Competence</th>
<th>Skills Demonstrated</th>
<th>Question Cues:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>□ observation and recall of information</td>
<td>list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.</td>
</tr>
<tr>
<td></td>
<td>□ knowledge of dates, events, places</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ knowledge of major ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ mastery of subject matter</td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td>□ understanding information</td>
<td>summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend</td>
</tr>
<tr>
<td></td>
<td>□ grasp meaning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ translate knowledge into new context</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ interpret facts, compare, contrast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ order, group, infer causes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ predict consequences</td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>□ use information</td>
<td>apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover</td>
</tr>
<tr>
<td></td>
<td>□ use methods, concepts, theories in new situations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ solve problems using required skills or knowledge</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>□ seeing patterns</td>
<td>analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer</td>
</tr>
<tr>
<td></td>
<td>□ organization of parts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ recognition of hidden meanings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ identification of components</td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td>□ use old ideas to create new ones</td>
<td>combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite</td>
</tr>
<tr>
<td></td>
<td>□ generalize from given facts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ relate knowledge from several areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ predict, draw conclusions</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>□ compare and discriminate between ideas</td>
<td>assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize</td>
</tr>
<tr>
<td></td>
<td>□ assess value of theories, presentations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ make choices based on reasoned argument</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ verify value of evidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ recognize subjectivity</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from: Bloom, *Taxonomy of Educational Objectives*)

Meeting Intellectual Needs
Developing Concepts
- Aimed at establishing a firm basis for later development of well-understood generalizations
- Students identify a number of concrete items from their experience.
- After a suitably large list is produced, students group the items that belong together and give reasons for doing so.
- Students then label their groups.
- Teacher questioning elicits identifying, grouping, and labeling responses.

Attaining Concepts
- Difference between building concepts and attaining concepts lies in degree of control:
  - Concept formation (Inductive) - Concept labels are the students' own, they label a group in the most appropriate way
  - Attaining concepts (Deductive) - Students are first given a concept word to say and recognize, then students are asked to recognize when examples fit the concept.
- Using concept attainment:
  - Make a chart on the board, on paper or on a transparency, then ask students to suggest examples that fit the category named.

Developing Generalizations (Interpretation of Data)
- Generalizations can take two forms:
  - Interpretations or conclusions, which are statements of relationships from given data.
  - Inferences, which are statements of relationships that go beyond the given data.

Applying Principles (Application of Principles)
- Examples of questions utilized in applying principles: What if? Why do you think this or that would happen? Based on the data, would these conditions be logical?

(Adapted from Taba, et al. A teacher’s handbook to elementary social studies)

Parnes Creative Problem Solving Model

<table>
<thead>
<tr>
<th>1. Objective Finding</th>
<th>Identify Goal, Wish, Challenge</th>
<th>What is the goal, wish, or challenge upon which you want to work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Fact Finding</td>
<td>Gather Data</td>
<td>What’s the situation or background? What are all the facts, questions, data, feelings that are involved</td>
</tr>
<tr>
<td>3. Problem Finding</td>
<td>Clarify the Problem</td>
<td>What is the problem that really needs to be focuses on? What is the concern that really needs to be addressed?</td>
</tr>
<tr>
<td>4. Idea Finding</td>
<td>Generate Ideas</td>
<td>What are all the possible solutions for how to solve the problem?</td>
</tr>
<tr>
<td>5. Solution Finding</td>
<td>Select &amp; Strengthen Solutions</td>
<td>How can you strengthen the solution? How can you select the solutions to know which one will work best?</td>
</tr>
<tr>
<td>6. Acceptance Finding</td>
<td>Plan for Action</td>
<td>What are all the action steps that need to take place in order to implement your solution?</td>
</tr>
</tbody>
</table>

(Adapted from Davis. Creativity is Forever)
Krathwohl’s affective domain taxonomy is perhaps the best known of any of the affective taxonomies. "The taxonomy is ordered according to the principle of internalization. Internalization refers to the process whereby a person's affect toward an object passes from a general awareness level to a point where the affect is 'internalized' and consistently guides or controls the person's behavior (Seels & Glasgow, 1990, p. 28)."

Receiving is being aware of or sensitive to the existence of certain ideas, material, or phenomena and being willing to tolerate them. Examples include: to differentiate, to accept, to listen (for), to respond to.

Responding is committed in some small measure to the ideas, materials, or phenomena involved by actively responding to them. Examples are: to comply with, to follow, to commend, to volunteer, to spend leisure time in, to acclaim.

Valuing is willing to be perceived by others as valuing certain ideas, materials, or phenomena. Examples include: to increase measured proficiency in, to relinquish, to subsidize, to support, to debate.

Organization is to relate the value to those already held and bring it into a harmonious and internally consistent philosophy. Examples are: to discuss, to theorize, to formulate, to balance, to examine.

Characterization by value or value set is to act consistently in accordance with the values he or she has internalized. Examples include: to revise, to require, to be rated high in the value, to avoid, to resist, to manage, to resolve.

(Adapted from Krathwohl et al. Taxonomy of educational objectives)
Kohlberg’s Stages of Moral Development

1. **Obedience and punishment orientation** - Physical consequences determine good or bad.

2. **Instrumental relativist orientation** - Rules are obeyed to gain something for oneself.

3. **Interpersonal concordance or “good boy – nice girl” orientation** - Primary concern is the approval of others.

4. **“Law and order” orientation** - Concern for authority, fixed rules, and maintaining the social order.

5. **Social contract legalistic orientation** - Recognition of certain general individual rights which have been critically examined and agreed upon.


**Six-Step Process for Discussions of Moral Dilemmas**

1. **Present the dilemma.** This may be done in several ways (via written materials, sound-filmstrips, films, role-play, etc.)

2. **Have students clarify the facts of the situation and identify the issues involved.** This may be done through teacher questioning and short class discussion.

3. **Have students 1) identify a tentative position on the action the central character should take and 2) state one or two reasons for that position.** This can be done in writing. Each student should think for her/himself.

4. **Divide the class into small groups for discussion.** Students share their reasons for the positions they have taken and decide on the best reasons to support their decision. Be sure the focus is on reasons.

5. **Reconvene the class for a full class discussion of the dilemma.** Teacher should use techniques to encourage maximum student-to-student interaction and to keep the discussion focused on reasons. Teacher should listen for stages of reasoning and ask questions which force consideration of stages of reasoning at higher levels than expressed.

6. **Ask students to reevaluate their original positions individually.** Ask students to review the discussion and to answer the following two questions privately: 1) Now what do you think the main character should do? 2) What is the most important reason for this action?

(Adapted from J. Maker. *Teaching Models in Education of the Gifted*)
Megaskills

Megaskills - the superbasics: the beliefs, behaviors and attitudes that determine our achievement in school and in life.

- **Confidence**: feeling able to do it
- **Motivation**: wanting to do it
- **Effort**: being willing to work hard
- **Responsibility**: doing what’s right
- **Initiative**: moving into action
- **Perseverance**: completing what you start
- **Caring**: showing concern for others
- **Teamwork**: working with others
- **Common Sense**: using good judgment
- **Problem Solving**: putting what you know and what you can do into action
- **Focus**: concentrating with a goal in mind

(Adapted from Rich. *MegaSkills*)

Supporting Social Relationships

1. **Ability Groups** - A group of gifted youth would feel less “different from normal.” When gifted students are among similar students, they form a full day support group.

2. **Flexible Groups** - Using any method of bringing gifted students together for at least part of the school time is beneficial.

3. **Counseling Groups** - Having a school psychologist or counselor facilitate discussion groups on a regular basis to talk about concerns.

4. **Gender-Specific Groups** - Have a gifted girls only/boys only group to address issues specific to being a gifted female/male.

5. **Interest Groups** - Encourage activity with non-gifted students with similar interests such as the arts or athletics.

6. **Individual Assessment** - The teachers need to be a role model by treating all individuals of all ability levels with respect. Teachers need to avoid comparing students’ work.

(Adapted from Johnson. *Affective Component in the Education of the Gifted*)
Avoiding Perfectionism

What Perfectionism Does to You:

- **Moods** fluctuate drastically according to your achievements or failures.
- **Quantity** of achievements become more important than quality.
- **No time** to celebrate success, you focus only on your next goal.
- **Past** failures continue to haunt you.
- **Perceptions** become distorted, unmet goals become huge, and past successes become small.
- **No satisfaction** can be reached until things are perfect.
- **All-or-Nothing** becomes your mode of thinking.
- **Procrastination** is used to excuse imperfect work.
- **Anxiety** can become paralyzing.
- **Your health** takes second place to your goals.
- **Dependence on caffeine** can decrease health.
- **You may be driven** to eating disorders, or self harm.
- **Relationships can be strained** due to overly high expectations.

"I have offended God and mankind because my work didn’t reach the quality it should have"

- Leonardo da Vinchi

**How to Take Care of Yourself:**

- Learn to fail
- Learn to laugh
- **Get out and exercise**
- Turn problems into **opportunities**
- Learn to say **NO**
- Take on something you **enjoy**
- **Prioritize** your activities
- **Set reasonable goals**
- Give yourself **enough time**
- **Make friends with uncertainty**
- Allow yourself to **make mistakes**
- Be **flexible** to alternative paths
- Savor success
- Graciously accept praise
- Learn to **relax**

"Have no fear of perfection – you’ll never reach it." - Salvador Dalí

(Adapted from Adderholdt & Goldberg. *Perfectionism*)
Works Cited


Davis, Gary. 1998.  *Creativity is Forever*.  Kendall Hunt

Gentry, Marcia, Carol Moran and Sally Reis. 1999.  Expanding Enrichment Program Opportunities to All Students.  *Gifted Child Today* 22 no4 36-48 Jl/Ag.


Gould, Bette, and Kaplan, Susan.  *Frames: Differentiating the Core*.  Educator to Educator

Gould, Bette, and Kaplan, Susan.  *Independent Study*.  Educator to Educator


Martinson, Ruth A. Date Unknown.  *The Identification of the Gifted and Talented*.  Ventura, CA., Office of the Ventura County Superintendent of Schools


Tannenbaum, Abraham. Date Unknown.  *Non-Intellective Factors in Gifted Children*.  Publisher Unknown


http://www.childdevelopmentinfo.com/disorders/famous.shtml

http://www.firsthandfoundation.org/jamesearljones/bio.html

http://www.nald.ca/ldanl/famous.htm

http://scout.wisc.edu/addserv/NH/99-09/99-09-28/0000.html

http://www.twicegifted.net/ld.htm

Teaching the Gifted