Understanding and Challenging the Gifted:

An Introduction for Teachers

A message from PAGE and PSEA

Dear Teachers:

Welcome to the world of gifted education! A gifted child's academic and intellectual future can be shaped considerably by your awareness of the special needs of gifted students and the provision of appropriate services to best meet their needs. Research suggests that a teacher is one of the main determiners of a child's educational success.

As a teacher of Pennsylvania's brightest young learners, it is important that you become a major player in a gifted child's education. You can take the first step by learning more about gifted education and the special needs of gifted students.

Meeting the needs of each student in your classroom is a challenging responsibility, and one required by Chapter 16 regulations. Every child deserves an appropriate education. The gifted child is no exception. Students learn at different speeds and differ in their ability to understand complex concepts. High-ability students need challenging curriculum that matches classroom strategies with their advanced cognitive ability.

Pennsylvania Association for Gifted Education (PAGE) and Pennsylvania State Education Association (PSEA) are partnering to bring you this booklet that will be a helpful tool as you teach and challenge Pennsylvania's young minds. We invite you to take the first step to learning how to meet the needs of the gifted learner through the information and resources provided in this publication.

Sincerely yours,

Pennsylvania Association for Gifted Education
Pennsylvania State Education Association

For more information visit www.penngifted.org or www.psea.org

Defining Giftedness in Pennsylvania

The law, Chapter 16, now requires school districts to identify children who are gifted and in need of specially designed instruction.

Background

In 1989, the General Assembly directed the State Board of Education and the Department of Education to overhaul the special education regulations and standards, including those pertaining to gifted education (Act 48 of 1989). The state board and the department responded by publishing new regulations and standards, effective July 1, 1990, that included provisions for the gifted.

More recently, in December 2000, the state board again reviewed Chapter 14 regulations and decided to separate gifted education and make it a stand-alone chapter: *Chapter 16: Special Education for Gifted Students.*

Who Are the Gifted?

Mentally Gifted

> Mentally gifted is defined as outstanding intellectual and creative ability, the development of which requires specially designed programs or support services, or both, not ordinarily provided in the regular education program. (22 Pa. Code §16.1)

Intellectual ability is not equated with an IQ score alone. Intellectual ability is and should be a reflection of a range of assessments including a student's performance and potential.

IQ 130 or more

> The term "mentally gifted" includes a person who has an IQ of 130 or higher, when multiple criteria as set forth in Department Guidelines indicate gifted ability. Determination of gifted ability will not be based on IQ score alone… The determination shall include an assessment by a certified school psychologist. (22 Pa. Code §16.21(d))

IMPORTANT NOTE: No one test or measure is sufficient to determine giftedness, and the evaluation and testing literature recognizes that there is a margin for error in any standardized testing. The standard error of measurement also applies when reporting IQ.

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IQ Lower than 130

A person with an IQ score lower than 130 may be admitted to gifted programs when other educational criteria in the profile of the person strongly indicate gifted ability (22 Pa. Code §16.21(d))

If a student's IQ is less than 130, other factors, such as academic performance, demonstrated achievement and other observed skills must strongly indicate gifted ability in order for that student to be admitted to a gifted program. Because disabilities and bias actors may mask gifted abilities, districts are cautioned to examine discrepancies between ability assessment results and academic achievement or demonstrated skills, and discrepancies among ability subtests.

Independent Evaluations

Parents, at their own expense, may obtain an independent evaluation by a certified school psychologist. The school district is required to consider this information when making decisions regarding student identification. (22 Pa. Code §16.61 (e) (3)).

Dual Exceptionalities

If a student is both gifted and eligible for special education, the procedures in Chapter 14 shall take precedence. For these students identified with dual exceptionalities, the needs established under gifted status must be fully addressed in the procedures required in Chapter 14. (22 Pa. Code §16.7(b))

For students who are gifted and eligible for special education, it is not necessary for school districts to conduct separate screening and evaluations, develop separate IEPs, or use separate procedural safeguards processes to provide for a student's needs as both a gifted and eligible student. (22 Pa. Code §16.7(c))

For students who are thought to be both gifted and disabled, care must be taken by the school district to assure that both giftedness and the disability are fully addressed as part of the student's public education.

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Multiple Criteria

Criteria, other than IQ score, which indicate gifted ability include but are not limited to achievement, rate of acquisition/retention, demonstrated achievement, early skill development, and intervening factors masking giftedness.

Achievement

> A year or more above grade achievement level for the normal age group in one or more subjects as measured by nationally normed and validated achievement tests able to accurately reflect gifted performance. Subject results shall yield academic instruction levels in all academic subject areas. (22 Pa. Code §16.21(e)(1))

The assessment instruments should have high enough ceilings to accurately reflect academic performance in the gifted range. Assessment should yield performance and achievement data beyond basic skills and should be used for appropriate instructional placement. This data forms the basis for decisions as to where, in specific content areas, specific courses or curriculum, a student should begin the learning experiences for the year. The results of the testing must provide instructional levels in all academic subject areas for use in determining educational placement.

Rate of Acquisition, Rate of Retention

> An observed or measured rate of acquisition/retention of new academic content or skills that reflect gifted ability. (22 Pa. Code §16.21(e)(2))

Rate of acquisition is the speed at which the student is able to acquire, understand, and demonstrate competency or mastery of new learning. This data can be obtained by simple procedures such as Curriculum Based Assessment (CBA), direct observation, and reporting from parents, teachers, or supervisors. An example of acquisition/retention: the gifted student, after approximately one to three repetitions of new knowledge/skills, is able to achieve mastery; other students may require four to eight repetitions. Rate of acquisition/retention is used to adjust the pace of learning for the gifted student.

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Demonstrated Achievement

> Demonstrated achievement, performance or expertise in one or more academic areas as evidenced by excellence of products, portfolio or research, as well as criterion-referenced team judgment. (22 Pa. Code §16.21(e)(3))

Another criterion is the student's demonstrated achievement, performance-based skills, or expertise that shows a high-level of accomplishment, and indicates exceptional interest and motivation in specific areas. These may be documented in permanent products, portfolios, demonstration of skills, awards, community involvements, or others. For example, a student is a member of the high school debate team and has qualified for the state finals in grades 9, 10, and 11; a student loves to write poetry and has a folder of unpublished works.

Early Skill Development

> Early and measured use of high level thinking skills, academic creativity, leadership skills, intense academic interest areas, communications skills, foreign language aptitude or technology expertise. (22 Pa. Code §16.21(e)(4))

Assessment of early and measured use of high level thinking skills could include checklists or inventories such as Guilford or Bloom's Taxonomy. It could also include anecdotal notes that document developmental milestones reached earlier than average students, or when a student has mastered skills beyond that child's age level.

Intervening Factors Masking Giftedness

> Documented, observed, validated or assessed evidence that intervening factors such as English as a second language, learning disability, physical impairment, emotional disability, gender or race bias, or socio/cultural deprivation are masking gifted abilities. (22 Pa. Code §16.21(e)(5))

Some students' gifted abilities may be hidden by factors such as ethnicity, socio-economic status or disability. Data specifically tied to the student's learning environment is used to make decisions on remedial/coping strategies and specially designed instruction. For example: An economically disadvantaged household where educational resources and opportunities are lacking or a household experiencing problems such as alcoholism, divorce, spouse/child abuse, or incarceration may mask the student's identification as gifted.

Defining Giftedness in Pennsylvania

Characteristics of Gifted Children

The characteristics of gifted children can lead to both positive and negative behaviors.

Characteristic	Positive Behavior	Negative Behavior
Learns rapidly/ easily	Memorizes and masters basic facts quickly	Gets bored easily, resists drill, disturbs others, underachieves
Reads intensively	Reads, uses library on own	Neglects other responsibilities
Perfectionist	Exceptional accomplishments	Intolerant of mistakes
Retains quantity of information	Ready recall and responses	Resists repetitions, “know it all”
Long attention span	Sticks with task of personal interest	Resists class routine, dislikes interruptions
Imaginative, curious, many interests	Asks questions, gets excited about ideas, takes risks	Goes on tangents, no follow–through, disorganized
Works independently	Creates and invents beyond assigned tasks	Refuses to work with others
Alert, observant	Recognizes problems	Impolitely corrects adults
Good sense of humor	Able to laugh at self	Plays cruel jokes or tricks on others
Comprehends, recognizes relationships	Able to solve problems alone	Interferes in the affairs of others
Aesthetic Insight, awareness	Appreciation of the arts	Poses personal values/judgments on others
Highly verbal, extensive vocabulary	Fluent with words, numbers, leads peers in positive ways	Leads others into negative behaviors, monopolizes discussion
Individualistic, strong-willed	Asserts self and ideas, has small circle of friends; sense of own uniqueness	Stubborn in beliefs
Self-motivated, self-sufficient	Requires minimum teacher direction or help	Aggressive, challenges authority
Prefers older peers	Wise beyond years	Isolated or misunderstood
Highly sensitive, passionate	Emphasizes fairness, and morality, compassionate	Over-reacts to situations
Views with a different perspective	Observes across boundaries, makes connections	Resists limitations and narrowly focused content

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Defining Giftedness in Pennsylvania

Myths about Gifted Students

Many myths have been associated with giftedness. The following list summarizes some of the facts and fallacies related to gifted students.

Myth Gifted students will achieve without guidance.
Fact Without guidance and support, gifted students may lose motivation or underachieve.

Myth Gifted students should be given large quantity of work at average grade level.
Fact Gifted students need a high degree of educational challenge, not more work at an average or repetitious level.

Myth Gifted students are 'teacher pleasers' and easy to teach.
Fact In order for gifted students to maintain high levels of achievement, teachers must make curricular adjustments. Without appropriate modifications, gifted students may develop behavior problems.

Myth Gifted students will make straight As.
Fact Gifted students will not always achieve, especially if unmotivated.

Myth Gifted students are nearly always from upper middle class professional families.
Fact Gifted students are from diverse racial, ethnic, and socio-economic backgrounds.

Myth Gifted students are often socially popular with their peers.
Fact Gifted students are often ostracized socially, especially at the secondary level.

Myth Gifted students learn best on their own.
Fact Gifted students benefit from being grouped with their intellectual peers for a significant part of their instructional day.

Myth Extra help for gifted students fosters snobbery and is likely to lead to an elitist class.
Fact Giftedness is fragile. Every child deserves an education which is appropriate to individual needs. Children at both extremes of the ability spectrum need special education.

Myth Gifted students are best served when tutoring.
Fact When gifted students consistently tutor others, often they are not learning anything new. This can create unhealthy self-esteem issues for both the tutored and the gifted student.

Curriculum and Instruction

Chapter 16 requires districts to provide gifted students with specially designed instruction (§16.41(b)), and defines this instruction as adaptations or modifications to the general curriculum, instructional environments, methods, materials, or a specialized curriculum for students who are gifted. (22 Pa. Code §16.1)

Developing specially designed instruction for gifted students is the responsibility of both the gifted support staff and regular education teachers. Assessment of the student's needs must be the basis for the specially designed instruction. It should not be a one-size-fits-all program. There are three fundamental differences that distinguish gifted learners from other learners:

- The capacity to learn at faster rates, more in-depth and with greater complexity,
- The capacity to find, solve, and act on problems more readily, and
- The capacity to manipulate abstract ideas and make connections.

Curriculum, Instruction, Process and Product

In developing specially designed instruction, there are four aspects that should be considered as the framework: Curriculum, Instruction, Process, and Product. The following are key principals that provide a guide for gifted program development.

Curriculum

- Focus on and be organized to include more elaborate, complex, and in-depth study of major ideas, key concepts, and themes that integrate knowledge within and across disciplines.
- Be an extension of core learning, using both acceleration and enrichment strategies. Streamline curriculum that the student is able to master quickly.
- Encourage exposure to, selection of and use of varied, challenging and specialized resources.
- Provide opportunities for students to recognize complex relationships and arrive at sound generalizations.
- Stress higher-level thinking, creativity, and problem solving skills.
- Set high standards that demand rigorous expectations for student work and performance demonstration.

Curriculum and Instruction

Instruction

- Promote in-depth learning and investigation that deals with real life problems and issues. Select concepts and content that promote students' involvement as practitioners of the discipline.
- Allow for the development and application of productive thinking skills to enable students to re-conceptualize existing knowledge and/or generate new understanding.
- Be flexibly paced and matched to the student's ability, pre-assessment data, learning style, interest, and motivation.

Process

- Provide students with the freedom to choose topics to study and the methods to use in manipulating and transforming information.
- Promote independent, self-directed and in-depth study. Encourage the application of advanced research and methodological skills.
- Focus on open-ended tasks.
- Provide opportunities for students to develop leadership and group interaction skills.
- Allow student-centered discussion, Socratic questioning and seminar-type learning.

Product

- Encourage the development of products that challenge existing ideas and produce new ones.
- Incorporate the application of discipline methodologies in product development.
- Promote products that are comparable to those made by professionals in the designated field.
- Require that products of gifted students represent application, analysis, and synthesis of knowledge.
- Provide the opportunity to create products/solutions that focus on real-world issues.
- Establish high-level and exemplary criteria to assess student performance and products.

Curriculum and Instruction

Educational Program Options

A variety of educational program options are appropriate for gifted children. Check with your local gifted specialists to determine what educational program options are available in your district. Common program options include:

Curriculum Compacting
Standard curriculum is compressed into a shorter period of time, allowing the gifted student to study related material while classmates master standard content.

Cluster Grouping
Placing a group of 5-10 identified gifted students in a classroom with other students of mixed abilities.

Independent Study
Students work independently under guidelines or a contract. Mentorships, apprenticeships, and field experiences are designed to meet students' performance levels and career interests.

Grade and/or Subject Acceleration
Progressing through an educational program at rates faster or ages younger than is conventional.

Field Experiences
Out-of-school educational experiences such as trips, workshops, and extracurricular activities. Examples: Odyssey of the Mind, Future Problem Solving, and Mock Trial.

Tiered Assignments
Adjusting the same lesson or concept to accommodate high, middle, and low readiness levels.

Honors Classes
Regular curriculum covered at a faster pace with greater depth, abstraction or complexity.

Advanced Placement
A type of acceleration in which students have Advanced Placement classes in the high school and take an Advanced Placement exam.

Post Secondary Enrollment
Provides students with the opportunity to take college courses while earning both high school and college credit.

Pull-Out Program
Students are pulled out of the regular classroom on a scheduled basis to go to a resource room staffed by a teacher trained in the education of gifted children.

Resource Room/Area
A special classroom or area is set up for advanced learning or enrichment opportunities.

Self-contained Classroom
A classroom in which all students have been identified as gifted/high ability. This is their everyday classroom assignment.

Enrichment
Curriculum is modified to provide greater depth and breadth than generally provided.

Curriculum and Instruction

Top 10 Tips

When planning for challenge and differentiation for the gifted in your classroom, keep the following in mind:

1. Provide multiple opportunities for creative outlets through open-ended projects and products.

2. Provide depth in content areas and subjects of interest to gifted students, moving beyond the curriculum.

3. Allow gifted students to work together a portion of every day. This will stimulate them to achieve more than they would if they work alone or in mixed ability groups.

4. Make sure gifted students are not punished with MORE work or a lesser grade because they take a risk. Replace the standard curriculum with more challenging opportunities.

5. Provide higher level activities and lesson options on a regular basis, including divergent and evaluative thinking.

6. Allow time for gifted students to explore their passion areas and express them in varied disciplines and mediums.

7. Provide opportunities for gifted learners to be challenged and encourage perseverance in the face of obstacles.

8. Encourage independent study and research skills, including the use of multiple resources and the reading of original documents.

9. Reduce the amount of lecture, worksheets, drill, and practice.

10. **Remember:** BOTH enrichment and acceleration are necessary.

For more information visit www.penngifted.org or www.psea.org

Differentiated Instruction

Using Tiered Lessons

Tiered assignments are varied levels of assignments or activities that focus on a skill or concept, but are approached at the student's level of readiness. The assignments or activities build on prior knowledge and prompt continued growth.

Select skill or concept to be learned.

↓

Develop activities on varied levels of complexity based on the selected skill or concept.
The activity should match students' readiness.

↓

Assign students to groups according to learning needs.

↓

Match student groups with leveled activities.
The activity should match students' readiness.

↓

Students complete assignments or do the activity assigned.

The goal of tiered assignments is that each student should work with the essential understanding of the skill or concept at his or her appropriate challenge level.

Differentiated Instruction

Tiered lessons example

Subject: Social Studies **Skill:** Cultural Development **Grade:** 7

Assignment 1 — Group 1

Using an encyclopedia, list 5 great artists that came from Great Britain, Japan, or Egypt before 1490 A.D. Find pictures of their work and make a display with captions to show it. Write a one-page biography of each artist's life and present it to the class.

Only for below grade level students

Only for at grade level students

Assignment 2 — Group 2

Using three different resources, identify and trace the governments of Great Britain, Japan, and Egypt until 1490. Make a chart and compare how each type of government affected the people in terms of health care, employment, and agriculture.

Assignment 3 — Group 3

Using at least three different resources, plus the Internet, identify how the cultures of Great Britain, Japan, and Egypt might have had contact up until 1490, and explain how these contacts might have influenced each country's development. Develop a debate, regarding a critical issue that might have occurred over the topic of imports during that time frame. Present this debate to the class.

Only for above grade level students

Differentiated Instruction

Menu of Options

When helping students with independent study, open-ended projects, or options after pre-testing out of a unit, consider doing a tic-tac-toe menu or other menu of options for gifted students. Here is an example.

Play Tic-Tac-Toe

1. Draw a cartoon strip of a story using only four frames.	**2.** Create an audio or visual tape of your favorite story.	**3.** Design a diorama of a story. Be very specific.
4. Re-write a traditional story from another point of view.	**5.** Compare and contrast two versions of the same story. *Example: Little Red Riding Hood.*	**6.** Create new words to a common nursery rhyme.
7. Create a recipe for a good story. What does a good story need in it?	**8.** Invent an unusual pet and write a story about it.	**9.** Write and illustrate an alphabet book.

Name_____

Date_____ Subject_____

I choose activities #____, #____, and #____.

Taxonomy of Thinking

Evaluation Level
Judge the value of something. Present and defend opinions and judgments based on a set of criteria.
Key Words
Critique, dispute, prioritize and justify, conclude, defend, rate, support, prove, evaluate, measure, argue.
Products
Debate, persuasive speech, editorials, defense/verdict, set criteria, design rating scale, and rate scenarios.

Synthesis Level
Combine information in a different way to come up with a different solution. Rearrange parts to make a new whole.
Key Words
Build, compile, create, invent, combine, construct, develop, imagine, suppose, elaborate, adapt, propose, make up.
Products
Lesson plan, song, poem, story, ad, invention, scientific method, skit, role play.

Analysis Level
Understand how parts are related to a whole. Make inferences and find evidence.
Key Words
Inspect, classify, survey, compare, infer, contrast, test for, assume.
Products
Survey, questionnaire, research project, Venn diagram, experiment, logic puzzles.

Application Level
Apply knowledge to solve problems in new and different situations.
Key Words
Demonstrate, use, model, build, develop, solve, identify, organize, choose, plan.
Products
Recipe, model, artwork, craft, interview, demonstration, essay, project, report.

Web Site Resources

Hoagies Gifted Education Home Page
www.hoagiesgifted.org

National Association for Gifted Children
www.nagc.org

National Research Center for Gifted and Talented, www.gifted.uconn.edu

Pennsylvania Association for Gifted Education (PAGE), www.penngifted.org

Pennsylvania Department of Education
www.pde.state.pa.us/

Pennsylvania State Education Association (PSEA), www.psea.org

Teacher Resources

Critical Thinking Press,
www.criticalthinking.com

Engine-Uity, Ltd., www.engine-uity.com/

Free Spirit Publishing, www.freespirit.com

Gifted Education Press,
www.giftedpress.com

Gifted Psychology Press,
Great Potential Press
www.giftedbooks.com

Connie Belin & Jacqueline N. Blank Center for Gifted Education,
www.education.uiowa.edu/belinblank/

Mindware, www.mindwareonline.com

Pieces of Learning,
www.piecesoflearning.com

Prufrock Press, www.prufrock.com

Davidson Institute for Talent Development,
www.ditd.org

Resources listed are not necessarily endorsed by PAGE/PSEA.
The list is not comprehensive.

Resources

College Planning

Berger, S. (1994)
College Planning for Gifted Students
Reston, VA: The Council for Exceptional Children

Guidance for Gifted

Webb, J.T., Meckstroth, E.A.
And Tolan, S.S. (1982)
Guiding the Gifted Child
Columbus, OH: Great Potential Press

Neihart, N., Reis, S.M., Robinson, N.M. & Moon, S.M. (Eds.) (2002)
The Social and Emotional Development of Gifted Children: What Do We Know?
Waco, TX: Prufrock Press, Inc.

Underachievement

Coil, C. (1994)
Becoming an Achiever
Dayton, OH: Pieces of Learning

Coil, C. (1999)
Encouraging Achievement
Dayton, OH: Pieces of Learning

Questioning

Johnson, N. (1995)
Active Questioning
Dayton, OH: Pieces of Learning

Johnson, N. (1999)
The Quick Question Workbook
Dayton, OH: Pieces of Learning

Menu of Options (Tic-Tac-Toe)

Aydelott, J. and Buck, D. (2001)
You Choose
Dayton, OH: Pieces of Learning

Curriculum Compacting

Reis, S., Burns, D. and Renzulli, J.
Curriculum Compacting: The Complete Guide to Modifying the Regular Curriculum for High Ability Students
Mansfield Center, CT: Creative Learning Press, Inc.

Strategies for Differentiation

Heacox, D. (2002)
Differentiating Instruction in the Regular Classroom: How to Reach and Teach All Learners, Grades 3-12
Minneapolis, MN: Free Spirit Publishing

Rogers, K. (2002)
Re-forming Gifted Education
Columbus, OH: Great Potential Press

Smutny, J., Walker, S. and Meckstroth, E. (1997)
Teaching Young Gifted Children in the Regular Classroom
Minneapolis, MN: Free Spirit Publishing

Tomlinson, C. (1999)
The Differentiated Classroom: Responding to the Needs of All Learners
Alexandria, VA: ASCD

Winebrenner, S. (2001)
Teaching Gifted Kids in the Regular Classroom
Minneapolis, MN: Free Spirit Publishing

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PSEA and PAGE thank the Ohio Association for Children for their permission to reprint sections of their Handbook for Teachers of Gifted Students, 2000. OAGC, Gahanna, OH 43230.

The Pennsylvania Association for Gifted Education (PAGE) and Pennsylvania State Education Association (PSEA) are pleased to provide you with a copy of **Understanding and Challenging the Gifted: A Handbook for Teachers of Gifted Children.**

The purpose of this booklet is to provide teachers with information about how giftedness is identified, the characteristics of gifted children, and educational strategies and resources which may be appropriate for gifted children in your classroom.

Pennsylvania has a unique history in mandating special education for gifted students. The promulgation of **Chapter 16: Special Education for Gifted Students** reaffirms this legacy and commitment to the importance of specially designed instruction for gifted students. The Pennsylvania State Board of Education acknowledges in Chapter 16 that students who are gifted are "children with exceptionalities" under the Public School Code of 1949.

For additional information contact or visit:

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