Addressing the Learning Needs of Gifted Students Through the Schoolwide Cluster Grouping Model

Sioux City Schools
Parent Night
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I am co-author of:

- **Differentiated Lessons for Every Learner**
- **Teaching Gifted Kids in Today’s Classrooms**
- **The Cluster Grouping Handbook:** How to challenge gifted students and improve achievement for all

**Helping All Gifted Children Learn:** A Teacher’s Guide to Using the Results of a nonverbal ability test
Overview of the Presentation

- Gifted children and their learning needs

- The Schoolwide Cluster Grouping Model:
  - Expands gifted services
  - Embraces diverse gifted learners
  - Increases achievement
  - Raises expectations for all students
  - Attracts and retains smart students
  - Costs little to nothing to implement
Identified as Gifted
What Does this Mean?
One definition of the gifted & talented

**Francois Gagné~**

“Giftedness designates the possession and use of untrained and spontaneously expressed natural abilities (called aptitudes or gifts), in at least one ability domain (e.g. intellectual, creative, socio-affective, perceptual/motor, and ‘others’)...”

“By contrast, ‘talent’ designates the superior mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity.”
THE GIFTED CHILD

COULD BE, BUT NOT NECESSARILY

150 IQ
EXTREMELY POLITE

PLEASANT, THOUGH STAYS BY HIMSELF

NON-ATHLETIC BODY

ALWAYS WEARS A BELT

HAS NEAT HANDWRITING

ALWAYS TURNS IN HOMEWORK

EXCELLENT STUDY HABITS WELL ORGANIZED

HAS A GOOD SELF CONCEPT

QUIET, LISTENS ATTENTIVELY AND follows DIRECTIONS

ALWAYS LEARNS EVERYTHING THE FIRST TIME THROUGH

MAKES STRAIGHT "A's"

HAS PUSHY PARENTS

ANXIOUS TO PLEASE TEACHERS

STAYS IN LINES, WHEN COLORING

PLAYS PIANO, OBOE & VIOLIN
<table>
<thead>
<tr>
<th>Differences Between</th>
<th>The Bright Child &amp; The Gifted Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows the answers</td>
<td>Asks the questions</td>
</tr>
<tr>
<td>Is interested / alert</td>
<td>Is highly curious / Is keenly observant</td>
</tr>
<tr>
<td>Is attentive &amp; involved</td>
<td>Is mentally and physically</td>
</tr>
<tr>
<td>Has good ideas</td>
<td>Has wild, silly ideas</td>
</tr>
<tr>
<td>Works hard</td>
<td>Plays around, yet tests well</td>
</tr>
<tr>
<td>Answers the questions</td>
<td>Discusses in detail, elaborates</td>
</tr>
<tr>
<td>Top group</td>
<td>Beyond the group</td>
</tr>
<tr>
<td>Listens with interest &amp; opinions</td>
<td>Shows strong feelings</td>
</tr>
<tr>
<td>Learns with ease</td>
<td>Already knows</td>
</tr>
<tr>
<td>6-8 repetitions for mastery</td>
<td>1-2 repetitions for mastery</td>
</tr>
<tr>
<td>Understands ideas</td>
<td>Constructs abstractions</td>
</tr>
<tr>
<td>Enjoys peers</td>
<td>Prefers Adults</td>
</tr>
<tr>
<td>Grasps the meaning</td>
<td>Draws inferences</td>
</tr>
<tr>
<td>Completes assignments</td>
<td>Initiates projects</td>
</tr>
<tr>
<td>Is receptive</td>
<td>Is intense</td>
</tr>
<tr>
<td>Copies accurately</td>
<td>Creates a new design</td>
</tr>
<tr>
<td>Enjoys school</td>
<td>Enjoys learning</td>
</tr>
<tr>
<td>Absorbs information</td>
<td>Manipulates information</td>
</tr>
<tr>
<td>Technician</td>
<td>Inventor</td>
</tr>
<tr>
<td>Enjoys straightforward, sequential learning</td>
<td>Thrives on complexity</td>
</tr>
<tr>
<td>Is pleased with own learning</td>
<td>Is highly self-critical</td>
</tr>
</tbody>
</table>
Why do gifted students need something different?
What do the tests measure?

- IQ tests measure ability.

- Achievement tests measure what a child already knows.
High Ability Relates to…

• Making relationships between ideas and things

• Acquiring and retaining information quickly

• Learning advanced content more quickly than age peers
Gifted children learn differently

They may not need to go through the same sequential steps that others must follow when learning new content.
Many Gifted Children Have….

- A wide range of interests
- Highly developed curiosity and a limitless supply of questions
- Interest in experimenting and doing things differently
- Tendency to put ideas of things together in ways that are unusual and not obvious
- Unusual interest in justice, ethics, and morality
- Ability to retain a great deal of information

These behaviors relate to learning in all content areas, all day.
What are the learning needs of gifted students?

All students deserve consistent opportunities to learn new material.

With gifted students, this means having opportunities to engage in intellectually stimulating endeavors that go beyond grade level curriculum.
“Without a national strategy or federal mandate (or funding), gifted education depends on decisions made at state and local levels. Leading to a bewildering system of services.”

“All Gifted is Local”

“State of the States Report”, NAGC 2009
The Schoolwide Cluster Grouping Model

A method for providing full-time gifted education services without major budget implications, and with potential to raise achievement for all students.

With the SCGM, all students are purposely placed into classrooms based on their abilities, potential, or achievement.
The SCGM allows schools to employ…

Critical elements of effective gifted programs:

- Flexible grouping
- Differentiation
- Continuous progress
- Intellectual peer interaction
- Continuity
- Teachers with specialized education
In The SCGM

A group of gifted identified students is clustered into a mixed ability classroom with a teacher who is trained to differentiate for gifted students.
The SCGM enfranchises all gifted students...

Creatively gifted people

Gifted Perfectionists

Culturally and linguistically diverse gifted students

Twice-exceptional gifted students

Non-productive gifted students
# Suggested classroom composition

<table>
<thead>
<tr>
<th>30 students in 3 classes</th>
<th>Gifted</th>
<th>High Average</th>
<th>Average</th>
<th>Low Average</th>
<th>Far Below Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>0</td>
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<tr>
<td>B</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
How does the SCGM fit with other inclusion models?

The two models are totally compatible. For ease of scheduling and to ensure that students receive appropriate instruction by properly trained teachers, schools commonly cluster special education students according to the services they require.

The SCGM replicates this model for gifted students.
Is Cluster Grouping the same as tracking?

No…

*When tracking* students are grouped into classrooms with others of comparable ability and generally remain together throughout their school years. Curriculum is based on the ability levels of the students in each track.

*When clustering* all classes have a range of abilities. Teachers modify curriculum and extend grade level standards according to the students’ needs and abilities. The classroom composition changes each
Why should gifted students be placed in cluster groups instead of assigned to all classes?

Gifted students…

- need to spend time learning with others of like ability to experience challenge and make academic progress
- better understand their learning differences when they are with learning peers

Teachers…

- are more likely to differentiate curriculum when there is a group of gifted students
- have the full range of abilities
Will cluster groups rob the other classes of academic leadership?

With gifted or high achieving students in every class all classes have academic leaders

Gifted students do not make the best academic leaders because they make intuitive leaps and therefore do not always appear to have to work as hard as others

High average students have new opportunities to become academic leaders
Gifted children typically…

Are intensely curious and have many interests
Process information with great speed and deep understanding
Remember forever what they learn
Readily grasp underlying principles and make generalizations
Are highly sensitive
Relate well with older students and adults
Demonstrate advanced sense of humor
Enjoy self-directed work
Sustain long periods of attention and concentration

*These behaviors apply to all content areas, all day long.*
Effective Gifted Cluster Teachers...

- Understand, respect, and enjoy teaching gifted students
- Strongly support inclusion
- Decrease use of whole group instruction
- Encourage student-centered approach to learning
- Participate in professional development
When designating cluster teachers, we seek teachers who:

- Understand, respect, and enjoy teaching gifted students
- Strongly support inclusion
- Decrease use of whole group instruction
- Encourage student-centered approach to learning
- Participate in professional development
Gifted cluster teacher meetings

Each school’s Cluster Coach leads monthly meetings.

Suggested meeting components:

- Discussion of specific strategies
- Sharing resources: lessons, materials, etc.
- Nomination and testing issues
- Problem solving regarding classroom or site concerns
- Planning for growth - scheduling students and incoming gifted cluster teachers
Cluster Teacher training topics:

- Understand and know how to implement the SCGM
- Recognize gifted potential in all populations
- Pay attention to students’ social/emotional needs
- Identify students who need learning accommodations
- Compact and differentiate
- Form flexible learning groups
- Integrate basic skills and higher order thinking skills
- Create and use learning extensions and tiered lessons
- Use appropriate assessments and grading practices
- Develop student’s abilities to self-direct
- Build effective parent/teacher partnerships
Cluster Grouping: Achievement Implications

- Narrowed range of abilities allows for more focused instruction
- Teachers learn strategies for advanced ability learners they can use for all students, not just the gifted students
- On-going assessment of students’ strengths and needs ensures continual progress
- Gifted students are more likely to receive advanced instruction and extended learning opportunities
- Not all student are working on the same material at the same time

Higher expectations for all students!
Examining Academic Achievement

✓ Gifted students ~
    in a cluster classroom vs. not cluster grouped

✓ Non-gifted students ~
    in gifted cluster classes vs. not in a cluster class
Improving Performance for Gifted Students in a Cluster Grouping Model

Dina Brulles
Sanford J. Cohn
Arizona State University

Rachel Saunders
Cartwright Elementary School District, Arizona

Although experts in gifted education widely promote cluster grouping gifted students, little empirical evidence is available to attest to its effectiveness. This study is an example of comparative action research in the form of a quantitative case study that focused on the mandated cluster grouping practices for gifted students in an urban elementary school district. Some school administrators chose not to follow the model as designed, resulting in the emergence of two groups: gifted students in cluster-grouped classrooms and those in regular heterogeneous classrooms. This action research project analyzed achievement in mathematics for subgroups that included gender, grade levels, ethnicity, and English language learner status. Results indicate that the gifted students in gifted cluster classes demonstrated statistically significant and scientifically meaningful achievement growth, regardless of their demographic group.
Figure 1. Percent of change by grouping, cluster and noncluster.
Figure 3. Percent of change by ethnicity, cluster and noncluster.
Figure 5. Percent of change by grade, cluster and noncluster.
Schoolwide Mathematics Achievement Within the Gifted Cluster Grouping Model
Dina Brulles, Scott J. Peters and Rachel Saunders
Journal of Advanced Academics 2012 23: 200
DOI: 10.1177/1932202X12451439

The online version of this article can be found at:
http://joa.sagepub.com/content/23/3/200
Overall Academic Effects of Cluster Grouping on Non-Gifted Students

Cluster: 56 (Pre), 76
Non-Cluster: 40 (Pre), 57
Effects of Cluster Grouping Based on Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td>CaucasianCluster</td>
<td>61</td>
<td>81</td>
</tr>
<tr>
<td>CaucasianNonCluster</td>
<td>42</td>
<td>60</td>
</tr>
<tr>
<td>HispanicCluster</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td>HispanicNonCluster</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td>Afr.Amer.Cluster</td>
<td>55</td>
<td>74</td>
</tr>
<tr>
<td>Afr.Amer.NonCluster</td>
<td>36</td>
<td>51</td>
</tr>
<tr>
<td>AsianCluster</td>
<td>69</td>
<td>89</td>
</tr>
<tr>
<td>AsianNonCluster</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>Amer.IndianCluster</td>
<td>49</td>
<td>75</td>
</tr>
<tr>
<td>Amer.IndianNonCluster</td>
<td>39</td>
<td>56</td>
</tr>
</tbody>
</table>
Overall Academic Effects of Cluster Grouping Based on Grade Level (2-4)

<table>
<thead>
<tr>
<th>Cluster Level</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR2Cluster</td>
<td>71</td>
<td>93</td>
</tr>
<tr>
<td>GR2NonCluster</td>
<td>48</td>
<td>73</td>
</tr>
<tr>
<td>GR3Cluster</td>
<td>64</td>
<td>88</td>
</tr>
<tr>
<td>GR3NonCluster</td>
<td>42</td>
<td>64</td>
</tr>
<tr>
<td>GR4Cluster</td>
<td>60</td>
<td>84</td>
</tr>
<tr>
<td>GR4NonCluster</td>
<td>39</td>
<td>57</td>
</tr>
</tbody>
</table>
Overall Academic Effects of Cluster Grouping Based on Grade Level (5-8)

- GR5Cluster: 61
- GR5NonCluster: 41
- GR6Cluster: 56
- GR6NonCluster: 53
- GR7Cluster: 37
- GR7NonCluster: 41
- GR8Cluster: 37
- GR8NonCluster: 41

Pre: GR5Cluster 78, GR6Cluster 51, GR7Cluster 48, GR8Cluster 58
Post: GR5NonCluster 41, GR6NonCluster 41, GR7NonCluster 43, GR8NonCluster 31
Matching gifted characteristics to teaching strategies:

- Curriculum compacting
- Problem solving and project-based learning
- Acceleration
- Self-directed learning opportunities
- Attention to S/E needs
Matching characteristics to teaching strategies

■ Characteristics:
  • Unusual alertness
  • Rapid learner; puts thoughts together quickly
  • Excellent memory

■ Teaching strategy:

*Curriculum compacting*
Matching characteristics to teaching strategies

- **Characteristics:**
  - Enjoys solving problems, enjoy numbers & puzzles
  - Thinking is abstract, complex, logical & insightful
  - Advanced comprehension of word nuances and abstract ideas
  - Ask probing questions

- **Teaching strategy:**

  *Problem solving and Project Based Learning*
Matching characteristics to teaching strategies

- **Characteristics:**
  - Learn basic skills quickly and with little practice
  - Longer attention span and intense concentration
  - Often self-taught reading and writing as a preschooler
  - Unusually large vocabulary and complex sentence structure for age

- **Teaching strategy:**
  - *Acceleration*
Matching characteristics to teaching strategies

■ Characteristics:
  • Wide range of interests (or extreme focus in one area)
  • Highly developed curiosity
  • Interest in experimenting and doing things differently
  • Puts ideas or things together that are not typical

■ Teaching strategy:

Self-directed learning opportunities
Matching characteristics to teaching strategies

**Characteristics:**
- Deep, intense feelings and reactions
- Highly sensitive
- Idealism and sense of justice
- Concern w/social & political issues and injustices

**Teaching strategy:**
*Attention to S/E needs that impact learning.*
Extension menus and other DI lesson plans posted by grade level and content area.

**Science**
- Animal Extension Menu
- History and Nature Of Science.pdf
- Land and Water Make
- Science- Ecosystems Poster
- Weather and Climate.pdf

**Language Arts**
- After Reading Activities II.pdf
- After Reading Activities.pdf
- Primary Reading Extension menu.doc
- Vocabulary.pdf
Benefits of The SCGM include:

- Challenging gifted students every day, all day
- Creating learning and leadership opportunity for all students
- Empowering all teachers by expanding awareness and providing preparation
- On-going assessment of students’ strengths and needs
- All students have opportunities for extended learning
- Increase teacher training throughout district
- Increase gifted population
Thank you!

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