The Schoolwide Cluster Grouping Model

Addressing the Advanced Learning Needs Of Gifted Students While Increasing Achievement for All

Mesa Co.
Parent Meeting
November 2014

Dina Brulles, Ph.D.
Relevant Disclosures

I am coauthor of:

- *Helping All Gifted Children Learn: A Teacher’s Guide to Using the Results of a nonverbal ability test* (Naglieri, Brulles, & Lansdowne)

- *The Cluster Grouping Handbook: How to challenge gifted students and improve achievement for all* (Winebrenner & Brulles)

- *Teaching Gifted Kids in Today’s Classrooms* (Winebrenner & Brulles)
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
What do the tests measure?

- IQ tests measure ability.

- Achievement tests measure what a child already knows.
Differences Between

The Bright Child & The Gifted Learner

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

Figure 1
The Normal Distribution of IQ Scores

<table>
<thead>
<tr>
<th>Standard Deviations</th>
<th>IQ Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>55</td>
</tr>
<tr>
<td>-.2</td>
<td>70</td>
</tr>
<tr>
<td>-.1</td>
<td>85</td>
</tr>
<tr>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>+1</td>
<td>115</td>
</tr>
<tr>
<td>+2</td>
<td>130</td>
</tr>
<tr>
<td>+3</td>
<td>145</td>
</tr>
</tbody>
</table>

High AbilityRelates to...

- Making relationships between ideas and things
- Acquiring and retaining information quickly
- Learning advanced content more quickly than age peers
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
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.
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
Clustered for Success
Dina Brulles and Susan Winebrenner

Cluster grouping enables gifted students, as well as all the other students, to make meaningful progress.

The district was losing students, and there was no mystery about where they were going. Their loss coincided with a marked increase in the number of local charter schools. And who was leaving? Mostly the highest-ability students.

From 2005 to 2010, the Paradise Valley Unified School District in Phoenix, Arizona, saw its enrollment decline by approximately 5 percent. At the same time, the number of local charter schools increased. This situation isn't unique to Paradise Valley; it's happening across the United States.
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.
### 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><strong>A</strong></td>
<td>6</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>C</strong></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 year.
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.
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
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
What are some advantages of cluster grouping?

- Grouping *all* gifted children in a regular classroom provides social, emotional, and academic advantages to students.
- Teachers can focus instruction to better meet all students' academic needs.
- Schools provide full-time gifted services with few additional costs.

✓ *Achievement levels increase*
Some Strategies

- Acceleration
- Flexible Grouping
- Ability Grouping
- Curriculum Compacting
- Differentiated Instruction
- Enrichment
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!*
Examine Achievement Data
Academic Effects of Clustering and Non-Clustering Gifted Students in Mathematics
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.
Overall Academic Effects of Clustering vs. Non-Clustering for Gifted Students
Academic Effects of Clustering vs. Non-Clustering Based on Ethnicity

- HispanicCluster: Pre = 61.98, Post = 84.02
- HispanicNonCluster: Pre = 63.68, Post = 71.15
- CaucasianCluster: Pre = 63.94, Post = 85.15
- CaucasianNonCluster: Pre = 67.65, Post = 74.45
- Afr.AmerCluster: Pre = 64.06, Post = 86.06
- Afr.AmerNonCluster: Pre = 60.43, Post = 70.43
- AsianCluster: Pre = 69.30, Post = 87.48
- AsianNonCluster: Pre = 73.14, Post = 81.75
- AmerIndCluster: Pre = 56.78, Post = 86.56
- AmerIndNonCluster: Pre = 55.40, Post = 66.60
Academic Effects of the Cluster Model on General Education (Non-Gifted Learners) in Mathematics

Data collected 2008
Results of Pre to Post Assessment Scores in Mathematics
Overall Academic Effects of the Cluster Model on Non-Gifted Students

Cluster

Pre 56
Post 76

Non-Cluster

Pre 40
Post 57
Overall Academic Effects of the Cluster Model Based on Grade Level (2-4)

- GR2Cluster: Pre 71, Post 93
- GR2NonCluster: Pre 48, Post 73
- GR3Cluster: Pre 64, Post 88
- GR3NonCluster: Pre 42, Post 64
- GR4Cluster: Pre 60, Post 84
- GR4NonCluster: Pre 39, Post 57

Legend: Pre, Post
Overall Academic Effects of the Cluster Model Based on Grade Level (5-8)
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
THE SCHOOLWIDE CLUSTER GROUPING MODEL

SELECTED PUBLICATIONS

• *The Cluster Grouping Handbook: How to Challenge Gifted Students and Improve Achievement For All*, Free Spirit Publishing
• *Teaching Gifted Kids in Today’s Classrooms*, Free Spirit Publishing
• “Clustered For Success,” Ed Leadership, ASCD
• “Maximizing Gifted Students’ Potential in the Twenty-First Century,” ASCD
• “The Schoolwide Cluster Grouping Model: Restructuring Gifted Education for the Twenty-first Century,” Gifted Child Today
• “Improving Performance for Gifted Students in a Cluster Grouping Model,” Journal for Educating the Gifted
• “Schoolwide Mathematics Achievement within the Gifted Cluster Grouping Model,” Journal of Advanced Academics
• “Reviving Gifted Education with the School-wide Cluster Grouping Model”, Tempo
• “Implementing and Supporting the School-wide Cluster Grouping Model,” Online Training, Knowledge Delivery Systems
Thank you!

Dina Brulles, Ph.D.
dina@giftededucationconsultants.com
http://gifted.pvschools.net