

# The Schoolwide Cluster Grouping Model

## Restructuring Gifted Education Services for the 21st Century

Dina Brulles<sup>1</sup> and Susan Winebrenner<sup>2</sup>

**Abstract:** Schools today are experiencing dramatic changes in how they serve gifted students. Gifted programs that have prevailed for years are disappearing. In response, an increasing number of schools are turning to the Schoolwide Cluster Grouping Model (SCGM) to serve their gifted students. When implemented well, the SCGM represents one viable solution for providing effective and consistent gifted services within present budget constraints. Perceptions and practices that largely ignore the learning needs of gifted students carry heavy costs to society. Schools lose students to alternative programs, students lose opportunities for academic growth, and families lose faith in the education system. Instead, the potential of all students needs to be nurtured and developed. Current economic and political realities provide new opportunities to reexamine the ways we can deliver comprehensive and sustainable services for the most capable learners. The SCGM can achieve those goals in a way that is equitable and effective for all students by embedding gifted education services into the school system and increasing the possibility that the inherent needs of all students are understood and embraced. Focusing schools' attention on the needs of all students can enfranchise gifted students and demonstrate continued support for gifted education in the 21st century.

**Keywords:** gifted education, gifted, gifted programs, grouping, cluster grouping, clustering, inclusion

Schools today are experiencing dramatic changes in the ways they serve gifted students. Gifted programs that have prevailed for years are disappearing, and there is little hope of them being replaced in the foreseeable future.

In response, an increasing number of schools are turning to the Schoolwide Cluster Grouping Model (SCGM) to serve their gifted students, as implementing this model requires no additional funding.<sup>1</sup> When implemented well, the SCGM represents one viable solution for providing effective and consistent gifted services within present budget constraints.

In the Schoolwide Cluster Grouping Model, all students

in a grade level are grouped according to their abilities and achievement levels. The model creates a balance of ability and achievement across each grade level, yielding desirable outcomes that benefit all students (Winebrenner & Brulles, 2008). This article shows how the SCGM compares to other models and serves as a guide to educators who are seeking to implement the model in their schools.

WHEN  
IMPLEMENTED  
WELL, THE SCHOOLWIDE  
CLUSTER GROUPING  
MODEL REPRESENTS ONE  
VIABLE SOLUTION FOR  
PROVIDING EFFECTIVE  
AND CONSISTENT GIFTED  
SERVICES WITHIN  
PRESENT BUDGET  
CONSTRAINTS.

### The Need for Gifted Education Services

During this age of accountability and tightened budgets, schools are experiencing the daunting task of increasing student achievement and providing equity in services. School administrators are now seeking ways to restructure or strengthen their gifted services within these present realities. Prevalent models for delivering gifted education services

DOI: 10.1177/1076217511415381. From <sup>1</sup>Paradise Valley Unified School District and Arizona State University and <sup>2</sup>Education Consulting Service, Inc.

Address correspondence to: Dina Brulles, 7402 W. Port Au Prince Lane, Peoria, AZ 85381; email: dbrulles@pvschools.net.

For reprints and permissions queries, please visit SAGE's Web site at <http://www.sagepub.com/journalsPermission.nav>.

Copyright © 2011 The Author(s)

have met with some success throughout the years, as well as some challenges (Rogers, 2002). The following are several key concerns stemming from traditional models:

- The level of services may fluctuate across a school district. This variance in services encourages parents to carefully consider in which school attendance area to reside (Winebrenner & Brulles, 2008).
- Criteria for acceptance into gifted programs sometimes overlooks gifted students in the primary grades, those who are culturally and/or linguistically diverse (CLD), and those who are not working to their potential in school (Castellano, 2003).
- Programs that screen out gifted students who are not also high achieving may be viewed as elitist (Naglieri, Brulles, & Lansdowne, 2008).

Administrators seeking programming changes should consider whether these factors are important to the school community.

Visualizing a typical classroom, we can imagine three distinct groups that are present in unequal numbers: high-, average-, and low-achieving students (Winebrenner, 2003). Students in the average group are usually ready for grade-level curriculum, which means they will be learning new content throughout the year. Those who struggle to learn have received much of the nation's legislative attention and funding. They may represent 7% to 10% of the entire school population, with some students receiving special educational services. This practice reflects the system's understanding that these students have exceptional educational needs that must be addressed in order for them to achieve. Likewise, students who have high ability may also represent 7% to 10% of the entire school population, but the probability of their educational needs being accommodated is much lower than for students in the other groups (Winebrenner, 2003).

Accommodations that help gifted students learn and make progress require attention and careful planning. These goals can be accomplished within the current school system (Rogers, 2002). The process begins by reflecting on what is needed to support classroom teachers who have a broad range of ability in their classes and then developing ways to provide the needed support.

Professional development outcomes document that raising awareness of the needs of gifted students benefits all students. Building awareness of gifted students' learning needs can facilitate this process. Teachers can learn strategies that are critical for gifted students yet are effective with all (Gentry & MacDougall, 2009; Tieso, 2005; Winebrenner & Brulles, 2008). This expanded understanding can result in more students moving from meeting to exceeding the standard.

## Prevalent Gifted Education Models

Most schools with gifted programs incorporate variations of four prevalent models of gifted services: self-contained programs, pullout classes, honors classes, and cluster grouping models. Each model can have benefits and weaknesses

depending on the structure and implementation of the services. The models, once flourishing, are becoming diminished in today's economic downturn. The following descriptions highlight a few pros and cons of these models in the context of present conditions.

### Self-Contained Programs

Most self-contained gifted programs are designed for high-achieving, highly gifted students who are working well beyond their current grade level and studying content in greater depth than their grade-level peers. This program model is often critical to the academic growth of highly and profoundly gifted students. One limitation of the model is that it rarely serves gifted students who are not also high achieving. Therefore, the students in these programs might not reflect the ethnic and socioeconomic diversity present in other classrooms in the host school. This obstacle can be overcome when school districts providing self-contained programs supplement them with pullout and/or cluster models so they can better serve all their gifted students.

### Pullout Programs

Pullout gifted programs vary in delivery of curriculum and instructional methods and in the amount of time students receive services. Instruction for gifted students in pullout models is oriented toward content replacement, enrichment, and/or independent study opportunities. Pullout times may vary from one hour to one day per week. While the instruction during pullout times can be valuable and also enhance learning in other areas, on its own this model does not recognize students' need for gifted education services throughout every school day. When pullout programs represent the sole source of gifted services, classroom teachers may become complacent about challenging gifted students when in their homeroom classes (Brulles, 2005). Due to supplemental staffing needs, pullout services represent the most costly model, thus prompting many schools to eliminate this option.

### Content Replacement/Honors Classes

In content replacement, or honors classes, high-achieving gifted students receive advanced curriculum and instruction in core content areas, typically in mathematics and/or reading. A gifted education teacher outside the regular classroom at the home school provides the advanced curriculum. In some scenarios, all students are regrouped according to ability for instruction that is directed toward the particular needs of each group. Parents and teachers report that gifted students appreciate learning in honors classes, for both social and academic reasons.

Sporadic differentiation for gifted students sometimes occurs in the honors class or in the other subject areas in the regular class. This model assumes that gifted students have developed talent in only one or two content areas instead of being recognized as "gifted children" having exceptional general

ability that relates to various academic areas (Naglieri et al., 2008). Most honors teachers have expertise in their content area, but some may not have a full understanding of the learning needs of gifted students.

### Cluster Grouping

Cluster grouping models have been used in various forms for decades (Gentry, 1999; Gentry & MacDougall, 2008; Gubbins et al., 2002; Hoover, Sayler, & Feldhusen, 1993; Kulik & Kulik, 1991; Rogers, 1988; Winebrenner & Devlin, 2001). When incorporating a cluster grouping model, students identified as gifted are clustered into otherwise heterogeneous classes. Gifted students' achievement increases when gifted students learn together (Brulles, Cohn, & Saunders, 2010; Gentry, 1999; Gentry & MacDougall, 2008; Kulik & Kulik, 1991; Rogers, 1988; Tieso, 2005). The gifted cluster teacher is expected to provide consistent compacting and differentiated learning opportunities in the cluster classroom (Brulles, 2005; Gentry & MacDougall, 2008; Winebrenner & Brulles, 2008).

One challenge with cluster grouping models occurs when schools group the gifted-identified students in classes with the high achievers. Although this method benefits gifted students and helps teachers focus instruction at students' readiness levels (Gentry & MacDougall, 2008; Kulik & Kulik, 1991), school administrators report that some parents, teachers, and principals perceive a lack of academic leadership in classes that do not have gifted or high average students. Another important challenge is that successful cluster grouping requires monitoring by a school administrator to ensure that gifted students receive appropriately challenging curriculum and instruction (Brulles, 2005; Gentry & MacDougall, 2008; Rogers, 1988; Winebrenner & Brulles, 2008).

In summary, all four models provide certain benefits and challenges. Knowing that one single gifted service model cannot fully provide for the differentiated learning experiences needed by all gifted students, school administrators should strive to implement as full a range of programs as possible. This ensures that schools' gifted services are inclusive and thus more likely to improve achievement for all students in the school.

### The SCGM: Addressing Elements of Effective Gifted Programs

It is unlikely that one program model can successfully meet the needs of all gifted students. Nonetheless, effective gifted programs share critical features. In successful, comprehensive gifted programs, the following elements exist:

- intellectual peer interaction
- flexible grouping
- differentiation of curriculum and instruction
- continuous academic progress
- continuity of support services
- teachers with specialized training in gifted education.

The SCGM provides a structure and setting in which these elements can occur. Differentiation for gifted learners occurs within the content students learn, the processes they use, the products they develop, the learning environment they experience, and the assessments teachers use to evaluate their progress (Winebrenner & Brulles, 2008). Flexible grouping allows students to work with others who share similar interests, are ready for more challenging levels of complexity, or share similar learning preferences. Groupings should change according to the content or targeted objectives. Incorporating consistent flexible grouping is necessary for those teaching in the SCGM. The following two classroom scenarios describe how cluster grouping can address the critical elements of effective gifted programs.

One effective differentiation strategy that allows for acceleration with peer interaction in a gifted cluster classroom is demonstrated with David in Mrs. Baker's second-grade class. As a result of her specialized training in gifted education, gifted cluster teacher Mrs. Baker routinely uses strategies like The Most Difficult First (MDF) so that students can compact out of content they have already mastered:

When introducing math concepts, Mrs. Baker expects all students to participate in direct instruction for an initial period lasting no more than 10 minutes. After this brief period of direct instruction, she assigns practice problems to the class. She identifies what she considers to be the five most difficult math problems in the assignment. Mrs. Baker explains to the whole class that some students will need more practice with this math lesson and some will need less. Any students who wish to try to do the most difficult problems first are invited to do so. Mrs. Baker explains to the class that if a student can correctly complete the five most difficult problems, she or he demonstrates she or he does not need additional practice. The first student to correctly complete the five problems is invited to be the "checker" for others attempting the most difficult problems. Students who correctly complete the five most difficult first then work on more challenging math activities that Mrs. Baker has prepared in advance. Students who are working on accelerated content may work together in the classroom. Mrs. Baker makes compacting opportunities like this available daily for the different content areas. She believes that using strategies such as this helps all students, especially gifted students who need less practice learning new concepts.

Effective gifted programs ensure students' continual academic progress. With traditional grouping and teaching practices, gifted students often are those who are the least likely to experience academic growth in any given school year. Some gifted students have already mastered grade-level standards because they possess vast knowledge in various areas and

need grade acceleration. When accelerating beyond grade level, teachers may need administrative support for out-of-level district testing to document growth of the gifted students clustered in their classes. Even when gifted students have not already mastered grade-level content, they need faster pacing because they learn and grasp meaning more quickly than others and easily make connections between different areas of the curriculum (Winebrenner & Brulles, 2008). Ongoing assessment, both formal and informal, helps gifted cluster teachers document continued progress of their gifted students. Teachers report they are more likely to establish procedures for formative assessment, compacting, and content acceleration when a group of students in the class indicates the need. The scenario of Amy and her fourth-grade gifted cluster teacher, Mrs. Washington, demonstrates the process.

Amy was a fourth-grade gifted student who was very advanced in mathematics. Although her work in other subjects was outstanding, her extraordinary reasoning abilities and computational skills indicated that she needed acceleration in this subject. In September, Amy's gifted cluster teacher, Mrs. Washington, gave Amy the end-of-the-unit test for each unit in fourth-grade math. She then gave her the end-of-the-year assessment for fourth-grade math. She invited her other accelerated students to take these pre-assessments as well. The pre-assessments showed that Amy and several others had clearly mastered the fourth-grade level standards and needed a higher level math. To determine their challenge levels, Mrs. Washington then gave the students the end-of-the-year assessment for fifth-grade math. Of the several students taking the assessments, Amy and one other student demonstrated over 90% mastery for both fourth- and fifth-grade-level math. Mrs. Washington taught fifth-grade math to the students who were at this level during the same time period she taught the fourth-grade level math to the rest of her class. The sixth-grade math teacher agreed to include the two highly accelerated students in her class for the year. A similar arrangement continued over the years, allowing Amy to accelerate through math as needed. While in high school, Amy took math at the local community college. Because of her specialized training, Mrs. Washington understood that several of her students needed acceleration in math. She then differentiated the content, process, assessments, and environment to enable these students to progress at levels commensurate with their advanced abilities.

Gifted students learn more when grouped with other gifted students (Brulles et al., 2010; Gentry, 1999). They take more academic risks and challenge each other. Their competitive nature urges them to strive to achieve more highly than they would if not with intellectual peers (Rogers, 1988; VanTassel-Baska, 2003). Likewise, when gifted students feel understood and accepted by their classroom teachers, they are more

likely to challenge themselves academically and feel more comfortable and confident when learning with like-ability peers (Delisle & Galbraith, 2002; Webb et al., 2005). Moreover, when cluster grouped with the same students over several years, many gifted students form bonds and develop together socially.

## Continuum of Services

One critical element of gifted programs that is sometimes overlooked is the need for continuity. Gifted students are gifted every year, not only during the years when the school has a program that addresses their needs. School administrators should establish gifted education services as an integrated part of the regular school day for all gifted-identified students.

Beginning early in the elementary grades, gifted education services should be designed as a continuum that starts when the child is identified as gifted. For this to occur, schools need gifted cluster classes at every grade level (Winebrenner & Brulles, 2008) and teachers with specialized training (Gubbins et al., 2002). To enfranchise, engage, and challenge gifted students, teachers need to understand how these students learn. Effective teachers of gifted students know how to do the following:

- provide instruction that takes into account the attributes of gifted learners,
- emphasize appropriately challenging curriculum,
- encourage divergent, critical thinking (Naglieri et al., 2008).

While providing ongoing professional development for gifted cluster teachers is critical to the success of the model, all teachers in the school should receive some training. The Schoolwide Cluster Grouping Model impacts the entire school to some degree. Teachers who understand the different learning needs of gifted students can help support the model with the school community. Staff members with this understanding are also more likely to know whom to nominate for gifted testing.

## Benefits of the Schoolwide Cluster Grouping Model

Schools implementing the SCGM have reported a number of benefits based on the ways that the model is implemented and supported. Schools that effectively support the model commonly report the following benefits:

- Gifted students receive full-time attention to their exceptional learning needs, allowing them to progress at their own pace in an inclusionary setting.
- Gifted students who may not have participated in traditional gifted programs, including English language learners, twice-exceptional students, and underachieving gifted students, become enfranchised in this model.
- Although all teachers still have heterogeneous classes, the student achievement range in each class is slightly narrowed, which facilitates effective teaching.
- Achievement tends to rise across the grade levels being clustered because of the narrowed range of ability and



achievement levels in each class and due to the emphasis on training cluster teachers to provide and manage differentiated instruction in their classrooms.

- When not placed with identified gifted students, high-achieving students often emerge as new academic leaders in their own classes.
- Parents of gifted students support schools that provide appropriate services for their gifted children. Some districts find that families who have left their home school return when the district implements the model (Winebrenner & Brulles, 2008).

The Schoolwide Cluster Grouping Model can benefit the entire school population as well as individual gifted students. A study conducted in an elementary school district in Arizona showed that after a 6-year period of using a cluster grouping model, the percentage of gifted students who were identified and served reflected the ethnic composition of the school district's student population (Brulles, 2005). A second study in the same district showed that the gifted students served in gifted cluster classes achieved significantly higher in mathematics than the gifted students who were placed in heterogeneous classes that were not cluster grouped (Brulles et al., 2010). An example of how the SCGM can benefit the school is seen in the story of Erica and her teacher, Mr. Lanard:

Erica was a fifth-grade gifted student with high general ability. She was placed in Mr. Lanard's gifted cluster class with several other gifted students. Even so, Erica's mother was concerned about the teacher's ability to challenge her precocious daughter in this model. Prior to taking the role of gifted cluster teacher, Mr. Lanard had completed a course of gifted education workshops. He continued training throughout the school year by attending monthly gifted cluster teacher meetings, participating in afterschool workshops offered in the district, and doing a book study blog. This ongoing training proved helpful throughout the school year as he learned and practiced new strategies and procedures. By the end of his first year in this role, Mr. Lanard was feeling confident in his abilities and excited about continuing his training as a gifted cluster teacher. Erica's mother reversed her position as she witnessed the teacher's attention and enthusiasm for teaching her gifted daughter. Once convinced that Erica was thriving both academically and socially in the gifted cluster model, she eagerly shared her support of the model with other parents at the school.

While cluster grouping models can benefit many, it may not meet the needs of all gifted students. Highly and profoundly gifted students, especially those who are radically accelerated in multiple academic areas, are oftentimes served better in self-contained classes with others who have similar learning needs. Since both cluster grouping and self-contained programs require no additional staffing, school districts that implement both models better meet the needs of all their gifted students.

## A Model for Inclusive Services

Inclusive gifted programs provide services for all gifted students based on the students' ability and potential to learn (Winebrenner & Brulles, 2008). Certain student populations have been historically underrepresented in gifted programs due to students' lack of achievement, English language proficiency status, and/or the coexistence of specific learning disabilities (Brulles & Lansdowne, 2009; Castellano, 2003; Naglieri et al., 2008). The SCGM enfranchises these students and encourages teachers to teach to all students' strengths and potential.

Many gifted programs include only students who are highly productive in school. However, gifted children have advanced general ability, and that ability is still present even when productivity lags (Naglieri et al., 2008). When gifted students are grouped together in a cluster class with a teacher who has had training in gifted education, they are more likely to engage in challenging learning activities (Tieso, 2005). Given opportunities to learn with other gifted students, disenfranchised gifted students are more likely to make greater achievement gains (Brulles et al., 2010).

Teachers with training in gifted education acknowledge students' potential, emphasize strengths, and focus less on areas of weakness. When gifted students feel accepted and understood by their teachers, they are more apt to take academic risks (Delisle & Galbraith, 2002; Webb et al., 2005). In the SCGM, these conditions help gifted students engage in meaningful and productive learning experiences. Note how Tan's teacher, Mrs. Gomez, drew Tan in by allowing him to direct his own learning in her classroom.

Tan is a sixth-grade gifted student clustered in an English class with others who have strengths in this area. Early in the year, his papers were brilliant; he showed signs of being an accomplished writer. However, his enthusiasm for class assignments quickly waned. When Tan started missing assignments, Mrs. Gomez called his parents for a conference. The parents timidly described how Tan spends hours writing every evening at home! Upon further discussion, Mrs. Gomez understood what was occurring. Tan was writing a book, a fantasy that involved Avatars and included intricate illustrations drawn by the author. During her training as a cluster teacher, Mrs. Gomez learned a strategy she would now use with Tan. She invited Tan to work on writing his book at school while completing the illustrations at home. She was able to assess a number of sixth-grade writing standards through Tan's writing of his book. Tan's writing greatly improved because he invested himself in the writing. His efforts motivated several other students to begin writing chapter books of their own, so the teacher built this independent study opportunity into the repertoire of learning extensions she offered all students. Mrs. Gomez conferred regularly with the cluster teachers at her school during planning meetings and trainings. She attributes her success with Tan to this interaction.

**Table 1. Recommended Classroom Composition for the Schoolwide Cluster Grouping Model for a Single Grade Level**

Classroom	Gifted	High Average	Average	Low Average	Far Below Average
A	6	0	12	12	0
B	0	6	12	6	6
C	0	6	12	6	6

*Note.* Classes A, B, and C designate three sections in one grade level. The number of students in each table varies.

Source: From *The Cluster Grouping Handbook: How to Challenge Gifted Students and Improve Achievement for All*, by S. Winebrenner and D. Brulles, p. 14.

Copyright 2008 by Free Spirit Publishing. Adapted with permission of the authors and publisher.

## Placing Students in the SCGM

Gifted cluster groups generally consist of 4 to 10 gifted-identified students. When there are more than 10 gifted students identified at a grade level, a second gifted cluster classroom can be formed. The numbers in each classroom will fluctuate based on schools' situations (Winebrenner & Brulles, 2008).

Assignments to the various groups are determined by formal and informal methods that combine standardized test data on ability and achievement with teacher observations, grades, and other anecdotal data. Each school's student population should determine placement practices into the designated groups.<sup>2</sup> All gifted students are automatically placed in Group 1. All other students are assigned to groups using the achievement-based descriptors determined by the school. Table 1 shows a suggested classroom composition for a single grade level.

Placing students into classroom groups occurs in the spring of each year, with teachers from the sending and receiving grade levels working with the building principal. Assistance from gifted education specialists and special education teachers is provided as needed. Prior to placing students into classrooms, teachers assign all students in the grade level to one of the categories recommended here.

One visual method for making placements incorporates the use of colored note cards. With this method, each student group is represented by a designated card color, as determined by the student's gifted identification or achievement level. The current classroom teacher assigns each student to a group using the appropriate card color. Colored cards in the grade level are then combined to create the classroom combinations for the following school year.

As described by Winebrenner and Brulles (2008) in *The Cluster Grouping Handbook*, the student identification categories in Table 1 provide guidance for grouping all students into classrooms. Grouping categories consist of:

- Group 1–Gifted: All gifted-identified students, including those who are English language learners, not productive in school, and twice-exceptional gifted students.
- Group 2–High Average: Highly competent and productive students who achieve well in school.
- Group 3–Average: Students achieving in the average range of grade-level standards.

- Group 4–Low Average: Average students who are able to achieve at grade level with support.
- Group 5–Far Below Average: Students who struggle in several subject areas and score significantly below proficiency levels on academic measures.

After designating the appropriate grouping category for each student, the placement team assigns the students to classrooms. The process starts by clustering all gifted-identified students into designated gifted cluster classrooms. Next, high-average students are placed into classrooms that have not been assigned the gifted cluster. Average students are then placed evenly in all classrooms, and low-average students are placed in all classrooms according to the charts. Far-below-average students are grouped in the classes that do not have the gifted cluster.

An example of how student work is differentiated for varied groups in a gifted cluster class is seen in Ms. Kim's fifth-grade class. While studying the social, political, and economic causes of the Civil War, students in Ms. Kim's class were working on assignments at three different levels. Those working at minimum proficiency level needed to name and describe one social, one political, and one economic cause of the Civil War. Students working at slightly advanced levels were instructed to explain how one social, one political, and one economic cause of the Civil War led to the actual conflict. Gifted students in the class were asked to compare social, political, and economic causes of the Civil War to those same influences in the War in Iraq.

## Grouping Variations in the SCGM

Establishing the number of gifted cluster classes at a grade level and then placing students into the various classes involves weighing and balancing various criteria. The number of gifted-identified students is the primary factor determining the number of gifted cluster classes needed in each grade. Because these numbers change yearly, the number of gifted cluster classes in a specific grade level may also change from one year to the next.

Schools, grade levels, and student populations vary widely. This variability may call for flexibility and creativity when

placing students into classrooms. Additional factors that impact gifted cluster class compositions include:

- the number of sections in a grade level,
- schools with only one or two sections in each grade,
- too few or too many gifted students for one gifted cluster classroom,
- combination/multi-age classes,
- high numbers of students who fall far below the average in a grade,
- schools that departmentalize.

Examples of ways to place students in these scenarios are provided in the text and tables that follow.

### The Number of Sections in a Grade Level

The number of classes, or sections, in each grade level factors into the ideal number of gifted cluster classes to create. The more sections in each grade level, the greater likelihood that an additional gifted cluster class will be needed. As a general guide, consider Table 2.

Schools with one section per grade level can implement critical elements of the SCGM, such as learning about the needs of gifted students, using differentiated instructional strategies, and flexibly grouping students for instructional purposes. However, these schools cannot follow the model with fidelity, since each classroom would maintain the full range of ability and achievement levels.

### Few Students for One Gifted Cluster Classroom

Variations on the suggested model are necessary when cluster grouping in grade levels contains few gifted-identified students. When zero to three gifted students are in a grade level, include some high-average students along with the gifted students in the gifted cluster classroom, as seen in Table 3. The purpose is to create a balance of ability and achievement levels in all classes in the grade.

When there are no gifted-identified students in a grade level, a gifted cluster teacher should still be designated and invited to participate in the cluster teacher meetings and other professional development. Having a teacher at every grade level who has had training or experience in gifted education prompts discussions about the needs of gifted students during grade-level meetings, team planning, and curriculum adoptions. Additionally, when gifted-identified students enroll during the school year, they can be placed with a teacher who has participated in the cluster teacher training.

### Too Many Gifted Students for One Gifted Cluster Classroom

High numbers of gifted students in one class sometimes represents a challenge for the gifted cluster teacher. Grade levels with 10 or more gifted students may want to divide the gifted students into two gifted cluster classrooms. When there are enough gifted students to form two gifted cluster classes,

**Table 2. Recommended Number of Gifted Cluster Classrooms as Related to Sections in Grade Level**

Classes per Grade Level	Gifted Cluster Classrooms
2 to 3	1
4 to 5	1 to 2
6 to 8	2 to 3

Source: From *The Cluster Grouping Handbook: How to Challenge Gifted Students and Improve Achievement for All*, by S. Winebrenner and D. Brulles, p. 14. Copyright 2008 by Free Spirit Publishing. Adapted with permission of the authors and publisher.

there are usually two or more other section(s) in the grade level into which high-achieving students are grouped. This careful placement ensures a balance of ability and achievement levels across the grade.

When dividing gifted students into two cluster classrooms, the gifted students can be placed into the cluster classes based on their learning strengths in math or reading, as seen in Table 4. In Classroom A, Group 1 students who are strong in math are placed with a teacher who specialized in math. In Classroom B, the gifted students who are strong in language arts are grouped together. Similarly, in Classrooms C and D, the students in Group 5 are placed according to resource assistance provided based on the students' needs.

### Combination/Multi-Age Classes

Combination classes, also known as multi-age or multi-grade classes, provide an ideal placement for gifted students. In multi-age classes, all students work at varying challenge levels within the same content areas. In this setting, the teacher provides ongoing, formative assessment for all the students to create flexible learning groups. This routine practice of pre-assessing students' entry levels in the content areas is ideal for the gifted students in the class.

Table 5 demonstrates how a small school with one and a half sections of both second grade and third grade provides services for their gifted students in the SCGM. The school created a 2/3 multi-grade class, and this class became the gifted cluster class for Grades 2 and 3. High-achieving students were placed in the other classrooms in each respective grade. A similar situation was employed for Grades 4 and 5 in this small school. The classes maintained the same balance as previously described.

### Large Numbers of Both Gifted and Far-Below-Average Students in a Grade

Occasionally, grade levels have very large numbers of students falling into Groups 1 (gifted) and 5 (far below average). This scenario creates the need to place some of the students in Group 5 into a gifted cluster class. Assistance from a resource teacher helps the gifted cluster teacher who is working with the full range of abilities in his or her classroom.

**Table 3. Recommended Cluster Grouping for Grades With Few Gifted Students**

Classrooms	Group 1: Gifted	Group 2: High Average	Group 3: Average	Group 4: Low Average	Group 5: Far Below Average
A	1	7	13	9	0
B	0	10	12	5	3

**Table 4. Recommended Cluster Grouping for Grades With Many Gifted Students**

Classrooms	Group 1: Gifted	Group 2: High Average	Group 3: Average	Group 4: Low Average	Group 5: Far Below Average
A	10	0	12	12	0
B	12	0	12	10	0
C	0	16	8	4	6
D	0	16	8	4	6

**Table 5. Recommended Cluster Grouping for Multi-Age Classes and Related Grade-Level Classes**

Classrooms	Group 1: Gifted	Group 2: High Average	Group 3: Average	Group 4: Low Average	Group 5: Far Below Average
Grades 2–3, Multi-age	3/5	0	5/6	4/5	0
Grade 2	0	10	9	3	6
Grade 3	0	10	9	3	6

*Note.* This school has 1.5 sections in Grades 2 and 3.

Principals and teachers find that the cluster grouping model facilitates the scheduling of resource teachers because the students receiving resource assistance are also clustered.

Table 6 shows how one school divided its large number of students in Groups 1 and 5. The principal separated the students in these two groups according to the students' area(s) of strength or need: in this case, mathematics. She then placed the groups with a teacher (in Classroom B) who enjoyed differentiating in math.

### Middle Schools That Departmentalize

Middle schools can incorporate the SCGM in several ways (Table 7). The subjects that cluster group are commonly determined by the school schedule. Some middle schools find it practical to cluster group for specific subjects, such as language arts and social studies. They then ability group for mathematics and have heterogeneous classes for science and electives.

### Instruction That Works in the Gifted Cluster Classroom

For success in the model, gifted cluster teachers need training on the SCGM, in gifted education, and in differentiated

instruction. This professional development can be offered at the school and district levels. When the SCGM is implemented throughout the district, schools benefit from general training that includes all cluster teachers and principals in the district.

The degree to which cluster teachers are supported throughout the school year influences success of the model. Ongoing training for gifted cluster teachers is a critical component in this model. However, inviting all teachers in the school to participate in training benefits all students (Gubbins et al., 2002). Suggested training topics include:

- the Schoolwide Cluster Grouping Model,
- characteristics of gifted learners,
- identification procedures,
- social and emotional needs of gifted students,
- parent communication,
- differentiated instruction,
- formative and summative assessment practices,
- forming flexible learning groups,
- curriculum compacting,
- creating lesson extensions,
- creating tiered assignments,
- teaching holistic thinkers.



**Table 6. Recommended Cluster Grouping in a Grade With Many Students in Groups 1 and 5**

Classrooms	Group 1: Gifted	Group 2: High Average	Group 3: Average	Group 4: Low Average	Group 5: Far Below Average
A	8	0	10	9	0
B	6	6	10	0	5
C	0	12	6	2	7

*Note.* When it is necessary to combine students in Groups 1 and 5 in the same class, group students according to areas of need, such as mathematics.

**Table 7. Recommended Cluster Grouping for Middle Schools**

Classrooms	Group 1: Gifted	Group 2: High Average	Group 3: Average	Group 4: Low Average	Group 5: Far Below Average
A	6	0	12	12	0
B	6	0	12	12	0
C	0	6	12	6	6
D	0	6	12	6	6
E	0	6	12	6	6
F	0	6	12	6	6

Effective strategies and instructional methods used in the SCGM are not specific to gifted education. In fact, many classroom teachers use these methods routinely (Tomlinson, 1999) and with great success. When used by a gifted cluster teacher who understands how gifted children think, learn, and feel, these strategies can be powerful tools that engage and motivate gifted students. Skilled cluster teachers incorporate the following strategies into their regular instruction:

- **Acceleration:** Presenting content to match the accelerated rate at which gifted and advanced students learn. Acceleration occurs in the cluster class in subject areas where students have mastered grade-level content (Winebrenner & Brulles, 2008).
- **Compacting:** Giving students full credit for previously mastered standards (Winebrenner, 2003). Compacting eliminates repetition and allows for accelerated instruction so that gifted students can learn more challenging material (Renzulli & Reis, 1992).
- **Enrichment:** Engaging students in learning activities that emphasize critical and creative thinking in the content areas (Naglieri et al., 2008).
- **Independent studies:** Allowing students to immerse themselves in areas of interest that relate to the subject being studied without being confined to grade-level standards (Winebrenner & Brulles, 2008).
- **Flexible grouping:** Forming temporary groups according to students' interests, achievement levels, learning

preferences, or content objectives. Flexible grouping can occur within the classroom, grade level, or beyond grade level (Naglieri et al., 2008).

Effective gifted cluster teachers consistently incorporate formal and informal assessment to determine students' learning needs. Ongoing assessment allows cluster teachers to group students flexibly according to their needs and results in increased student engagement and learning. An example of this is seen in Mr. Joseph's fourth-grade gifted cluster class:

On Monday, Mr. Joseph asks all students to look at the week's vocabulary list for 2 minutes to decide if they think they already know this week's words. Students may take the end-of-the-week test on Monday if they wish. Students getting no more than a specified number wrong have demonstrated that they do not need the week's practice on that vocabulary. Instead, they work on related extension activities at a higher challenge level. This option is available to all students, and from week to week different students qualify for the differentiation. Every 6 weeks a review unit of the previous five units is presented. During this time, Mr. Joseph provides differentiated activities with the vocabulary words for all students in the class. This scenario shows that all students can choose to take the pre-test each week, and all have regular opportunities to enjoy extension activities.

The Response to Intervention Model (RTI) that schools use to teach struggling students incorporates a similar philosophy as the SCGM. Teachers are encouraged to assess the student's entry level with the designated standard, choose an instructional method of teaching that will move the student forward, apply the method, and assess the degree to which the method worked. If all students—including gifted students—participate in a similar process, they will more likely make consistent academic growth. Using the rationale behind RTI, the SCGM provides a setting and structure in which gifted students can learn, achieve, and thrive.

## Conclusion

Perceptions and practices that largely ignore the learning needs of gifted students carry a heavy cost to society. Schools lose students to alternative programs, students lose opportunities for academic growth, and families lose faith in the public education system. Instead, we need to nurture and develop the potential of all our students.

Our current economic and political realities provide new opportunities to reexamine the ways we can deliver comprehensive and sustainable services for our most capable learners. The SCGM can achieve those goals in a way that is equitable and effective for all students, even within present budget constraints.

The Schoolwide Cluster Grouping Model helps school administrators embed gifted education services into the school system, increasing the possibility that the inherent needs of all students are understood and embraced. The model proposes that when teachers are trained to challenge their gifted students, the learning opportunities and high expectations can positively impact all students. Focusing schools' attention on the needs of all students can enfranchise gifted students and demonstrates continued support for gifted education in the 21st century.

*Contents of this article are based on The Cluster Grouping Handbook: How to Challenge Gifted Students and Improve Achievement for All by Susan Winebrenner, MS, and Dina Brulles, PhD, © 2008, Free Spirit Publishing.*

## Notes

1. In this article, the term *gifted* is defined as students identified as such on an ability test or IQ test. The term *high-achieving* is defined as students who are academically advanced and considered above the average in a given group (Winebrenner & Brulles, 2008).
2. Gifted students placed in the gifted cluster group are formally identified using the school district's identification criteria. A measure of general ability, such as the Cognitive Ability Test (CogAT), the Naglieri Nonverbal Ability Test (NNAT), or the Otis-Lennon School Ability Test (OLSAT), or an intelligence test, such as the Stanford Binet or the Wechsler Intelligence Scale for Children (WISC), are commonly used.

**Conflict of Interest:** The author(s) declare no potential conflicts of interest with respect to the authorship and/or publication of this article.

## References

- Brulles, D. (2005). *An examination and critical analysis of cluster grouping gifted students in an elementary school* (Unpublished doctoral dissertation). Arizona State University, Tempe.
- Brulles, D., Cohn, S., & Saunders, R. (2010). Improving performance for gifted students in a cluster grouping model. *Journal for the Education of the Gifted*, 34, 327-350.
- Brulles, D., & Lansdowne, K. (2009). Enfranchising gifted Hispanic English language learners through cluster grouping. In B. A. Kerr (Ed.), *Encyclopedia of giftedness, creativity and talent* (pp. 144-147). Thousand Oaks, CA: Sage.
- Castellano, J. (Ed.). (2003). *Special populations in gifted education: Working with diverse gifted students*. Boston, MA: Allyn & Bacon.
- Delisle, J., & Galbraith, J. (2002). *When gifted kids don't have all the answers*. Minneapolis, MN: Free Spirit Publishing.
- Gentry, M. L. (1999). *Promoting student achievement in the clustered classroom* (Report No. 99138). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Gentry, M., & MacDougall, J. (2009). Total school cluster grouping: Model, research, and practice. In J. S. Renzulli, E. J. Gubbins, K. S. McMillen, R. D. Eckert, & C. A. Little (Eds.), *Systems and models for developing programs for the gifted and talented* (2nd ed., pp. 211-234). Mansfield Center, CT: Creative Learning Press.
- Gubbins, E. J., Westberg, K. L., Reis, S. M., Dinnocenti, S., Tieso, C. M., Muller, L. M., & Burns, D. E. (2002). *Implementing a professional development model using gifted education strategies with all students* (Report No. 02172). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Hoover, S., Saylor, M., & Feldhusen, J. F. (1993). Cluster grouping of elementary students at the elementary level. *Roeper Review*, 16, 13-15.
- Kulik, J. A., & Kulik, C-L. C. (1991). Ability grouping and gifted students. In N. Colangelo & G. A. Davis (Eds.), *The handbook of gifted education* (pp. 178-196). Boston, MA: Allyn & Bacon.
- Naglieri, J., Brulles, D., & Lansdowne, K. (2008). *Helping all gifted children learn: A teacher's guide to using the results of the NNAT2*. San Antonio, TX: Pearson Assessment.
- Renzulli, J., & Reis, S. (1992). *The complete guide to modifying the regular curriculum for high ability students*. Mansfield, CT: Creative Learning Press.
- Rogers, K. B. (1988). *The relationship of grouping practices to the education of the gifted and talented learner: Research-based decision making* (Report No. 9012). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Rogers, K. B. (2002). *Re-forming gifted education: Matching the program to the child*. Scottsdale, AZ: Great Potential Press.
- Tieso, C. L. (2005). The effects of grouping practices and curricular adjustments on achievement. *Journal for the Education of the Gifted*, 29, 60-89.
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: The Association for Supervision and Curriculum Development.
- VanTassel-Baska, J. (2003). What matters in curriculum for gifted learners: Reflections on theory, research, and practice. In N. Colangelo &

- G. A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 174-183). Boston, MA: Allyn & Bacon.
- Webb J., Amend, E., Webb, N., Goerss, J., Beljan, P., & Olenchak, R. (2005). *Parents' guide to gifted children*. Scottsdale, AZ: Great Potential Press.
- Winebrenner, S. (2003). *Teaching gifted kids in the regular classroom*. Minneapolis, MN: Free Spirit Publishing.
- Winebrenner, S., & Brulles, D. (2008). *The cluster grouping handbook: How to challenge gifted students and improve achievement for all*. Minneapolis, MN: Free Spirit Publishing.
- Winebrenner, S., & Devlin, B. (2001). *Cluster grouping of gifted students: How to provide full-time services on a part-time budget* (ERIC Document Reproduction Service No. ED607)

## Bios

*Dina Brulles, PhD, is the director of Gifted Education Services in the Paradise Valley Unified School District in Arizona (www.pvschools.net/gifted) and a faculty member at Arizona State University. Her publications include The Cluster Grouping Handbook, Free Spirit Publishing, and Helping All Gifted Children Learn.*

*Susan Winebrenner, MS, is president of Education Consulting Service, Inc. Her books include: Teaching Gifted Students in the Regular Classroom, Teaching Students With Learning Difficulties in the Regular Classroom, and The Cluster Grouping Handbook, Free Spirit Publishing.*