EAB

Middle School Gifted and Talented Programs

Program Components and Staffing

District Leadership Forum

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Michelle Berger
Research Associate

Luke Churchill
Research Manager

Teresa Liu
Research Associate

Lauren Edmonds
Associate Director, Research

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1) Executive Overview

Key Observations

Rigorous instruction for gifted and talented middle school students requires elevating the depth and complexity of classroom tasks. For example, gifted instructional specialists at District A created a repository of rigorous math tasks for teachers to assign to gifted students. In these tasks, students complete open-ended, authentic math problems that may have multiple correct answers. Each of these tasks includes a pre-assessment to determine student readiness, and is aligned to a state college/career readiness standard. The exact tactics that teachers use to implement a rigorous instructional approach vary across middle schools within profiled districts and across profiled districts. At all profiled districts, however, rigorous instruction—in which teachers elevate the depth and complexity of classroom tasks—represents the primary component of middle school gifted and talented programs.

To optimize gifted student instruction, create classes specifically for gifted students or cluster gifted students in general education classes with mid- to high-achieving students if too few students qualify for gifted services. Teachers can focus specifically on gifted student needs and preferences through classes exclusively designed for these students. Therefore, middle schools at most profiled districts—District B, District C, some middle schools at District D, and District E—offer these types of classes. In some cases, however, not enough students exhibit giftedness in a subject area to completely fill a gifted-level class. At District A and some middle schools at District D, administrators cluster gifted students and assign them to general education classes—in the case of District A, already accelerated math classes that serve both general education and gifted students. Contacts at District D recommend that administrators place these clusters in classes with mid-to-high achieving students so teachers can focus on a narrower range of student abilities.

Create elective courses for gifted students to provide social-emotional support and additional academic enrichment. At District B and some middle schools at District E, gifted students attend an elective course (i.e., a course that is not a core subject) of exclusively gifted students. This course represents a vehicle for administrators to provide a welcoming environment and additional, challenging coursework. Contacts report that without this elective, gifted students may feel frustrated in general education classes that lack challenging content and they may have insufficient opportunities to connect with their high-achieving peers. Gifted elective courses at both profiled districts incorporate assignments that ask students to tackle rigorous, real-world problems.

Offer professional development for gifted students' teachers around gifted educational tactics sourced from state guidelines, teacher interests, and observed practices. Administrators at all profiled districts provide professional development for teachers of gifted students (i.e., teachers who teach gifted classes, general education classes with clusters of gifted students, and/or electives for gifted students). Professional development ensures that all teachers of gifted students implement rigorous, gifted-level coursework consistently, and thus represents a major component of the gifted and talented program at profiled districts. Gifted and talented program staff provide professional development opportunities including trainings during designated professional development days and webconferences posted to the district's learning management system. Gifted and talented program administrators use state guidelines, tactics highlighted on teacher surveys, and innovative practices that they observe during classrooms to create teacher trainings.

2) Placement

Class Assignments

Assign Gifted Students to Exclusively Gifted Classes or Clusters within General Education Classes, Depending on Population Size and Staffing

Administrators at most middle schools either:

- Place all gifted students in specific classes with exclusively gifted students (i.e., gifted-level classes) or
- Group gifted students into clusters (i.e., groups of approximately five to eight students) and place them in general education classes. [1]

At profiled middle schools, administrators use these two methods to place gifted students into classes.

Students identified as gifted demonstrate very high academic and intellectual abilities—the exact definition of giftedness varies across profiled districts.

Research literature on middle school gifted and talented programs notes that middle schools vary considerably in terms of structure and approach (e.g., grade level configuration, scheduling, professional collaboration). Therefore, no one model for delivery of instruction and other services to gifted students represents a superior method.[2]

Both methods help administrators achieve the two primary goals of middle school gifted and talented programs at profiled districts.

Goals of Middle School Gifted and Talented Programs at Profiled Districts

Students **engage with more rigorous coursework** that allows them to explore ambiguous problems and concepts. A more challenging curriculum reduces student boredom or disengagement.

Students **spend time with other gifted peers**, allowing them to develop a community and feel understood by like-minded individuals.

For example, contacts at District D and District E note that middle school administrators create gifted-level classes when enough students qualify for gifted services in the subject and grade level associated with the class. Contacts at District E explain that administrators prefer to place gifted students in classes that only contain gifted students whenever possible, as exclusively gifted classes provide students with a community of peers and with a classroom environment in which teachers can focus fully on gifted students' needs.

However, sometimes the number of students who qualify for gifted services would not fill a full class or would only fill one class. Contacts at District D explain that if administrators offer only one section per subject area for gifted students, they largely limit students' flexibility to take electives. For example, if administrators offer only one section of gifted-level math, and it meets at the same time as orchestra, students who exhibit giftedness in math could not participate in orchestra. In these instances, contacts report that administrators prefer to create clusters of gifted students and assign them to sections of general education classes, which meet at different times

1) Susan Rakow, *Educating Gifted Students in Middle School: A Practical Guide* (Prufrock Press, 2011).
2) Ibid.

during the day. With this model, if a gifted student wishes to participate in orchestra, administrators can assign them to a cluster in a general education class that does not overlap with orchestra.

Class Placement Strategies for Gifted Students at Profiled Districts

District	Instructional Model	Placement Approach
District A	Teams 	Clusters 
District B	Teams 	Gifted Classes 
District C	Varies 	Gifted Classes 
District D	Varies 	Clusters and Classes 
District E	Traditional High School Model 	Clusters and Classes 

Key	
Teacher Organization	
Teams 	Middle schools organize core subject teachers (i.e., math, English Language Arts (ELA), science, social studies) into interdisciplinary teams that share the same group of students. These teachers collaborate to serve their shared students. For example, teachers collaborate to design interdisciplinary lessons or discuss a student's behavioral problems.
Traditional High School Model 	Middle schools do not use interdisciplinary teacher teams. Rather, middle schools operate similarly to a traditional high school model, in which principals assign students to any available section of a course in the appropriate level and subject area.
Varies 	Middle school teacher organization varies across the district (i.e., some middle schools use teams, others use traditional high school models, others may use a different model entirely).
Placement Approaches	
Clusters 	Principals assign clusters of gifted students to general education classes.
Gifted Classes 	Principals assign gifted students to classes exclusively for gifted students in select subject areas.
Clusters and Classes 	Principals assign gifted students to classes exclusively for gifted students in participating subject areas. If not enough students qualify for gifted and talented services in a specific subject area, principals assign gifted students in that subject area to clusters in general education classes.

Prioritize Instructional Opportunities for Gifted Students, not Team Structures, When Enrolling Students in Gifted Classes

At **District B**, administrators group teachers into teams of four teachers that share the same group of students and receive common planning time. Whenever possible, each team offers an advanced-level version of each core course exclusively for gifted students. However, contacts report that sometimes not enough students on a team exhibit giftedness in a subject area to fill an advanced-level course in that area. In that instance, students on the team who exhibit giftedness in that subject area take an advanced-level course with students and teachers from a different team. Gifted students take their elective classes and any core classes in which they do not qualify for gifted services with students and teachers on their assigned team.

With Limited Resources, Prioritize Programming for Gifted Students in Math and ELA

Most profiled districts—District B, District C, and some middle schools at District D and District E—offer classes specifically designed for gifted students. These classes enroll solely students who demonstrate giftedness in the specific subject area. As noted above, administrators prefer this placement model whenever possible to facilitate community among gifted students and to ensure a narrow range of achievement level within the class, which supports teachers.

At middle schools with gifted-level classes in District D, administrators offer gifted-level versions of all core classes (i.e., math, ELA, social studies, and science). However, due to resource constraints (e.g., available staff), administrators at most profiled districts cannot provide gifted-level versions of all core classes. At District C, administrators offer gifted-level versions of all core courses except for math. In addition, at District B, administrators offer gifted-level classes in French and Spanish and in all core subject areas except for social studies. Finally, at middle schools with gifted-level classes at District E, administrators offer gifted-level versions of math and ELA.

Contacts at District D explain that students more commonly exhibit giftedness in math and ELA than in other core subject areas. This may explain why most profiled districts provide gifted-level courses in math and ELA. In fact, secondary research indicates that advanced math and ELA courses represent the most common way for middle schools to deliver programming to gifted students.[3]

One profiled district—District C—does not offer a gifted-level version of math. However, contacts report that gifted students at District C can enroll in grade-level accelerated math classes, which the district offers for general education students. Therefore, the district still provides an opportunity for gifted students to engage with rigorous math coursework.

3) Rakow.

Do Not Consider Student Giftedness When Determining Placement for Non-Gifted Classes

Administrators at District C do not consider students' giftedness when assigning them to specific teachers for non-gifted-level classes. Contacts at District C report that administrators aim to avoid tracking students who exhibit giftedness in one subject area to specific teachers for all subject areas. Secondary research indicates that tracking high-achieving students to specific teachers can cause other students and teachers to perceive certain classes or teams as superior to others.[4] By refraining from tracking, administrators can promote a more positive school culture.

Consider Classroom Composition When Placing Gifted Clusters in General Education Classes

While administrators should not track gifted students to specific teachers for all subject areas, contacts at District D report that administrators *should* consider the achievement levels of general education students when placing clusters of gifted students in these classrooms. At District D, building administrators can assign gifted clusters to any general education classrooms—district-level gifted and talented administrators do not mandate specific assignment procedures. However, contacts report that they recommend administrators assign clusters of gifted students to general education classrooms with only middle- to high-achieving students. Contacts explain that if administrators place gifted students in a class with low-achieving or special-education students, teachers must then differentiate their instruction across a wider range of ability levels. Contacts caution that this extensive differentiation requires additional time and may cause frustration for teachers.

Solicit Input from Teachers and Building Administrators to Place Gifted Students

At District B and District D, teachers and school-level administrators help gifted and talented program staff at the district- and school-level place students into appropriate gifted and talented program services. At District B, the program director convenes and leads meetings with these building-level staff. At District D, site-based program coordinators convene and lead the meetings.

4) Rakow.

Gifted Student Placement Teams

District B

- K-12 gifted and talented program director
- Building level administrators (i.e., building principals)
- Guidance counselors
- Curriculum coordinators
- Students' current teachers

District D

- Gifted and talented site coordinator
- Students' current teachers

The coordinator convenes a meeting of each gifted student's current teachers in January. The teachers discuss whether the student is receiving gifted services (i.e., advanced coursework) in the correct subject areas. If a teacher indicates that the student exhibits giftedness in a subject area in which they do not currently receive gifted services, the coordinator plans to add that subject area to the students' gifted services for the subsequent year.

To Engage Gifted Students, Incorporate Choice, Acceleration, Depth, and Complexity into Learning

Research literature recommends that teachers of gifted middle school students should incorporate one or more of four characteristics into their instructional approach whenever possible:[5]

- **Choice**: Students collaborate with teachers to decide what and how they learn.
- **Acceleration**: Students move on to other work once they demonstrate mastery of standards, often through a pre-unit assessment. In some instances, students may move on to above-grade level material. In most disciplines at districts profiled in this report, the work that students move on to remains on grade-level but incorporates depth and/or complexity around the assessed standards.
  - **Depth**: Students engage in deeper learning related to those standards (e.g., through open-ended or applied projects).
  - **Complexity**. Students explore connections between standards, subject areas, or different perspectives within the subject area.

At profiled districts, this rigorous instructional approach represents the primary component of gifted and talented middle school programs— the exact characteristics of that instructional approach, however, vary across classrooms in profiled districts.

Contacts at all profiled districts note that gifted students learn the same standards as general education students.

Common Characteristics of the Instructional Approach for Gifted Students at Profiled Districts

Characterisitics Across Multiple Disciplines
Pre-Assessments and Compacting
Before each unit, teachers assess student knowledge of the unit's standards. If students demonstrate mastery of a standard, teachers eliminate or reduce basic instruction of that standard (i.e., compact the curricula) and apply a more accelerated, challenging, and/or in-depth lesson or activity related to the standard (e.g., a project-based activity that applies the standard to a real-world context). For an example of a pre-assessment for gifted students at District A, see **Appendix A**.
Probing and Open-Ended Questions
Teachers encourage students to think beyond the initial or most obvious answer to a question. For example, teachers ask gifted students to identify all social, political, and economic factors that caused the Revolutionary War.

5) "Glossary of Terms Used in Gifted Education," The Michigan Association for Gifted Children, accessed January 31, 2020, https://migiftedchild.org/wp-content/uploads/file/resources/GATE%20Glossary.pdf; Rakow, *Educating Gifted Students in Middle School*.

Curriculum Adaptions

Teachers use supplemental resources, including above-grade-level materials, to adapt general education lessons for gifted-level students. For example, contacts at District E highlight several resources that teachers use to supplement lessons for gifted students:

- Michael Clay Thompson's language arts **curriculum**, which incorporates grammar, vocabulary, writing, poetry, language practice, and literature.
- International Mathematical Olympiad **practice problems**, which encourage students to develop critical thinking skills in math.
- Engage NY **curricula**, which provides publicly available instructional materials, allowing teachers to select above-grade level content to incorporate into lessons.

Characteristics in Specific Academic Disciplines

Math: Grade-Level Acceleration

At District A, District C, District D, and District E, gifted students take math classes in which teachers accelerate content by grade level.

For example, at District D gifted students take Algebra I in seventh grade and Geometry in eighth grade—during these years, general education students take pre-Algebra and Algebra I.

Math: Problem-Based Learning

Students work in groups or individually to investigate a complex math problem, implement solutions, and evaluate their work to generate new strategies until they solve the problem.[6]

For an example math problem for gifted students at District A, see page 17.

English: Advanced Texts

Gifted students in ELA classes read more complex literature, such as high school- or college- level novels, poetry, and other texts.

6) "Student-Centered Math Instruction in High Schools," EAB, 2019.

Sample Approach to Gifted Instruction in ELA

During a unit on Romantic-era poetry at District C, teachers guide gifted students to use conjectures—based on their knowledge of the historical era—to write poems in the style of the Romantic Era before they review historical examples. Teachers ask probing questions such as:

- Who had economic and political power during this time period?
- What were women's lives like during this time period?
- Why would people write during this time period?
- What would people write about?
- How would people write about those topics?

Contacts explain that these types of ambiguous activities are more appropriate for gifted students than for general education students, who may become more easily frustrated with these parameters. For general education students, teachers would provide an example of a Romantic-era poem for reference before assigning this exercise.

Primarily Accelerate Within Grade-Level Content to Engage Gifted Students Without Creating Barriers to Enter the Gifted Program

Instead of creating an accelerated pathway with a single entry point for gifted students, contacts at all profiled districts recommend teachers use pre-assessments and compact the curriculum to accelerate instruction for gifted students within the confines of the grade-level standards. As noted above, curriculum compacting refers to enabling students who demonstrated mastery of standards on pre-unit assessments to skip any assignments related to basic instruction of that standard (e.g., procedure-based practice problems), and instead work on more ambiguous or complex assignments related to the standard. Any teacher of gifted students—whether they teach grade-level accelerated math classes, general education classes with clusters of gifted students, or gifted-level classes—can use pre-assessments and curriculum compacting.

Consult EAB's report **Increasing Equity in Accelerated Math Pathways in Middle School** for more information on accelerated math programs for middle school students.

At District A, District C, and District D, administrators offer grade-level accelerated math classes (e.g., classes in which students take high school-level Geometry in eighth grade) for all high achieving math students—including, but not limited to, gifted students. Thus, many gifted students take grade-level accelerated math classes. However, the middle school gifted and talented programs at District B and District E do not incorporate any classes entirely centered around grade-level acceleration. Further, no profiled districts offer gifted students the opportunity to take courses accelerated by grade level in any discipline other than math.

Contacts in District A explain that grade-level acceleration can create challenges when it impacts the transition for elementary to middle or middle to high school. With few exceptions, this is equally true for both gifted and non-gifted students. If a sixth grade gifted student had the option to take a class—for example, math—that covers sixth *and* seventh grade content, but administrators were to identify that student as gifted in math at the end of their sixth grade year, that student would have to skip seventh grade content to enter the accelerated class the following year.

Dedicate Class Time for Gifted Students to Demonstrate Knowledge and Skills Through Advanced Projects

While all students likely benefit from project-based learning,[7] contacts report that state guidelines focus particularly on incorporating advanced project opportunities for gifted students.

At District D, some gifted students undertake advanced projects that allow them to demonstrate and apply their knowledge and skills in a more challenging context. Through these projects, gifted students have the opportunity to learn independently, work collaboratively with their peers to solve complex problems, and investigate topics of personal interest. At District D, gifted students at participating middle schools complete three different projects in middle school. These projects encourage students to discover more about themselves, their school, and the broader community.

Advanced Projects at District D

Grade	Example Project
Sixth	*Topic: The Individual* Students gave a presentation about themselves and their goals, following specific parameters (e.g., a timer to limit their time speaking for each slide) designed to challenge gifted students and encourage them to improve their public speaking skills.
Seventh	*Topic: The School Community* Students coded a website for their school with videos, a calendar, and academic resources to inspire students' curiosity outside of the classroom.
Eighth	*Topic: The World Outside of School* Students created a board game—which required them to practice their analytical reasoning skills—and presented it to the public at the **South by Southwest Education Conference**.

Not all gifted students in the district participate in a project. Contacts report that administrators considered asking ELA teachers of students who have demonstrated giftedness in ELA to incorporate advanced projects into their classes. However, some gifted students at District D do not qualify for instruction through the gifted ELA program, so these students (e.g., students who only receive gifted instruction in math) would not have the opportunity to complete the project.

At two of the district's middle schools, however, administrators group all gifted students together during the schools' 10-minute daily advisory. Thus, at these schools gifted students can work on their projects during the advisory period. Contacts anticipate expanding advanced projects for gifted students through similar, designated project times at the districts' remaining middle schools in the future.

7) "Project-Based Learning," EAB, 2018.

Library of Advanced Projects for Teachers and Administrators

The online database **Texas Performance Standards Projects** provides 100 ideas for different projects, sorted by grade level. Contacts at District D report that these projects represent strong examples of advanced projects for gifted students. For example, in **one project** students learn about types of mediation and conflict resolution and apply these concepts to discussions of real-world conflicts (e.g., India and Pakistan). Next, students participate in a group simulation of a current, real-world conflict at the local, state, national, or international level. After the simulation, students reflect on the outcome of their mediation.

Differentiated Instruction

In Clustered Classes, Use Differentiated Instruction to Deliver Advanced Coursework to Gifted Students

All gifted District A students—in clusters—attend general education classes. Clustered classes in which teachers differentiate instruction can effectively serve the needs of gifted students, without creating exclusive gifted classes. Furthermore, these classes can provide benefits for high-achieving students not officially identified as gifted.[8] These students gain exposure to ambiguous, challenging assignments that, though intended for gifted students, can also engage and effectively teach other high-achieving students. District C, District D, and District E teachers also differentiate instruction when gifted students are clustered in general education classes.

In particular, District A, District C, and District D contacts report that teachers differentiate instruction for gifted students by embedding additional depth and complexity into the curriculum. Contacts highlight two separate frameworks—one for ELA and one for math, outlined below—for embedding additional depth and complexity into curricula. Contacts report that gifted instructional specialists and teachers use these frameworks, among other tactics, to differentiate instruction for gifted students.

8) John Holloway, "Grouping Gifted Students," *Educational Leadership* 61, no. 2 (October 2003), http://www.ascd.org/publications/educational-leadership/oct03/vol61/num02/-Grouping-Gifted-Students.aspx.

Depth and Complexity Frameworks at Profiled Districts

Subject: Math

Framework: 10+1 by Jerry Burkhart

District A

This **framework** provides 10 strategies for creating deep math tasks, one strategy for creating complex math texts, a template to apply the framework, and a series of examples by grade level.

For example, the first strategy asks students to write a story based on a calculation or concept—i.e., apply the math problem to a real-world context.

At District A, gifted instructional specialists created a repository of math tasks that incorporate these, among other, strategies for gifted students. Teachers can assign these tasks for gifted students to work on while non-gifted students practice content gifted students have already mastered.

Subject: ELA

Framework: Icons by J Taylor

District C and District D

This **framework** identifies eleven themes (e.g., ethics) for teachers to embed as lenses for students to use to study content. These themes thus adapt regular, grade-level content for gifted students. The framework provides eleven theme-specific icons to indicate when teachers have adapted a question to require deeper and/or more complex thinking in accordance with the eleven themes.[9]

For example, instead of the question "Compare and contrast Lincoln and Washington," teachers ask students to "Compare and contrast the ethical dilemmas Lincoln and Washington faced."[10]

The icon, which always represents questions about ethics, visually prompts students to think about Lincoln and Washington in the context of ethics.

Use Parallel Curricula to Differentiate Instruction for Gifted Students in All Disciplines

Contacts at District C report that parallel curricula—more rigorous versions of grade-level questions/standards for each unit—allow teachers to differentiate instruction for gifted students in general education classes. For example, teachers may develop questions that connect to interdisciplinary trends or questions that ask students to think beyond the obvious answer. Though teachers may not ask students these questions directly, they design classroom activities and assignments in accordance with them. So, while general education students may work on assignments targeting the core level of each question, gifted students work on tasks targeting a more rigorous level of the same question. Parallel curricula also help teachers of advanced classes, composed of solely gifted students, adapt grade-level curricula to engage and challenge gifted students.

9) "Everything You Need to Know About Depth and Complexity Icons," *Byrdseed.Com* (blog), accessed February 3, 2020, https://www.byrdseed.com/introducing-depth-and-complexity/.
10) "Everything You Need to Know About Depth and Complexity Icons."

Parallel Curriculum for a Seventh Grade ELA Unit at *District C*[11]

Essential Questions for Unit 2: Fiction and Drama

Core	*Connections*	*Practice*	*Identity*
	Questions that add depth and complexity for gifted students		
• Does a country actually have to utilize war tactics to maintain peace? • How does change lead to growth? • How can differences enhance unity? • How can we use story writing and storytelling to help solve everyday problems? • How does what you read influence how you should read it?	• How does a writer develop bias and perspective based on their culture? What if this text were written 100 years ago? • How might this look different in the future? • What ways can we express ourselves when we don't know another's language?	• How do writers formulate a good story? • Where do writers get their ideas? • What makes writing worth reading, and why should we do it? • How does an author create meaning in a text, and what makes that meaning valid? • How do writers utilize dramatic techniques and elements to create a screenplay to be *presented* as opposed to *imagined* (non-fiction vs. fiction)? • How might a historian's background, bias, and perspective impact the way they tell history?	• How does our culture define us as individuals? • In a culture filled with ideas and images of who we should be, how do we form true and authentic identities? • What can art from other cultures teach us about ourselves?

In previous years at District C, gifted instructional specialists pulled teachers out of classrooms to help them create parallel curricula. The district provided substitute teachers to lead these teachers' classes during these pull-out sessions. Contacts report that teachers no longer use the parallel curricula they created during past pull-out sessions because the state recently changed the grade-level standards for each subject area and thus changed the essential questions for each unit. However, contacts report that administrators hope to provide time for teachers to create new parallel curricula in the future.

Create Differentiated Tasks for Gifted Students to Replace Regular Assignments

At District A, gifted and talented program staff, in collaboration with math educators, maintain a repository of advanced tasks for gifted middle school math students. Teachers administer pre-assessments to gifted students and, based on their performance, gifted students can work on these advanced tasks instead of regular instruction. Contacts emphasize that these math tasks entirely replace—rather than supplement—regular instruction. Contacts note that if gifted students must complete the advanced math tasks in addition to regular coursework, students may infer that

11)" Secondary GT Menu 7th Humanities ELA Unit 2: Fiction & Drama," District C, provided February 6, 2020.

their giftedness results in an extra workload, which could cause them to feel frustrated and disengaged.

Instead, teachers deploy these advanced math tasks while all students are working on practice problems in class. In place of the regular practice problems assigned to the general education students—which often incorporate memorization, practicing procedures, and repetition—gifted students work on these advanced math tasks. To review the pre-assessment associated with this advanced math task, see **Appendix A**.

Example Advanced Math Task[12]

To celebrate the 17 anniversary of Fashion Fab, you receive a 17% off coupon. You have $30 to spend. You must purchase 3 items and spend as close to $30 as possible.

List the possible original costs of the 3 items and show all work.

12)"Differentiated Advanced Learning Initiative – Extended Learning Task," District A, provided January 22, 2020.

4) Supporting Holistic Student Development

Electives and Pull-Out Support

Design Elective Courses for Gifted Students to Foster Growth and Self-Discovery

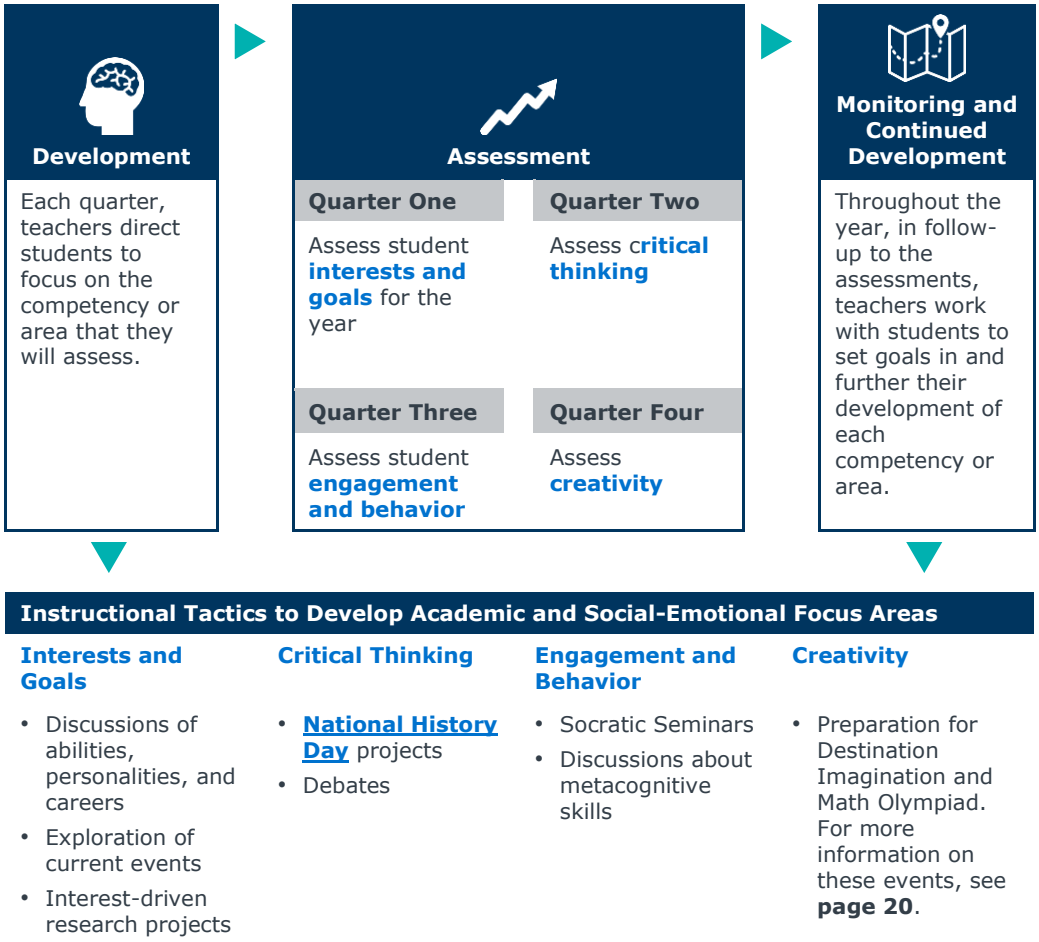
Elective courses encourage peer cohorts while offering time for collaborative or long-term projects, as well as individualized student support.

At District B and some middle schools at District E, gifted students attend an elective course. Contacts explain that this course primarily serves to provide gifted students with designated time with a group of similarly high-achieving peers. By providing this peer group, the gifted elective creates a welcoming and understanding environment for gifted students, who may feel isolated from the broader school community. At both profiled districts, administrators allow teachers discretion to determine the elective course's exact curriculum and design.

All gifted elective courses at both profiled districts, however, incorporate assignments that ask students to tackle rigorous, real-world problems through either collaboration or long-term projects. At District E, teachers use a specific problem-based learning **curriculum** to give gifted students opportunities outside of their math and ELA cases to engage with rigorous math and ELA coursework. At District B, students in the elective create projects to answer ambiguous, existential questions such as "What does it mean to be human?" and "What does it mean to be me?"

Contacts also report that gifted elective courses provide an opportunity for teachers to meet the individual social-emotional and academic needs of gifted students. To ensure that gifted elective course teachers monitor and respond to these individual needs, administrators at District E ask teachers to assess students in four academic and social-emotional areas each year: interests and goals, critical thinking, engagement and behavior, and creativity. Prior to and following assessment, teachers foster student development in these areas.

Development and Assessment of Four Academic and Social-Emotional Areas at *District E*



Use A Pull-Out Delivery Model to Provide Social-Emotional Support Without Elective Courses

At some District E middle schools and in District C's future plans for the gifted and talented program, gifted instructional specialists use pull-out sessions to deliver services (e.g., assessments to monitor development, social-emotional support) to gifted students. At District E, many gifted students enroll in the district's AP and IB middle schools. At these middle schools, contacts explain that the curriculum, which incorporates rigorous instructional techniques, naturally suits the needs and preferences of many gifted students. In addition, the student body, which comprises predominately high-achieving students, naturally provides peer groups for gifted students. Therefore, contacts report that gifted students at these schools feel more comfortable and included and thus do not require a specific elective course.

To ensure that the district monitors and encourages gifted students' development of goals, critical thinking, engagement and adaptive behaviors, and creativity—the focus areas of the gifted elective course at the district's other middle schools—gifted instruction specialists travel to the AP and IB middle schools to meet with gifted students once each quarter. During these meetings, the specialists pull gifted students out of their classes to assess these focus areas. Guided by student performance on these assessments, the specialists help students set and achieve goals to continue development in these focus areas.

During these pull-out sessions, the instructional specialists also provide college counseling. Contacts report that instructional specialists aim to ensure gifted students at the AP/IB middle schools set goals for post-secondary plans.

At District C, administrators do not currently provide pull-out services to gifted students. Next year, however, administrators plan to offer two-hour, pull-out sessions for gifted students at the middle school sites once every semester. District-level gifted instruction specialists will lead these sessions and focus them on topics relevant to middle school gifted students (e.g., imposter syndrome). These sessions will help administrators further gifted students' social-emotional development.

Competitions and Community Partnerships

Facilitate Partnerships at the District Level to Enhance Curricular Programs for Gifted Students

At District E, district-level administrators liaise with national and state organizations to provide co-curricular opportunities specifically for gifted students. Contacts explain that district-level administrators handle the administrative and logistical elements of these partnerships (e.g., registration, transportation). Contacts highlight **Destination Imagination**, a day-long, innovation-focused event, and **Math Olympiad**, an annual math competition, as two of the district's primary co-curricular partners. All gifted students participate in Destination Imagination, and all qualifying gifted students participate in Math Olympiad. Administrators usually reserve participation in these events for gifted students exclusively. However, general education students may participate if there is excess capacity.

Contacts at District E report that teachers incorporate these co-curricular opportunities into instruction for gifted students. For example, contacts report that teachers devote time during dedicated gifted-student electives to help students prepare for these co-curricular experiences. To support students who plan to compete in Math Olympiad, teachers distribute practice problems from past Math Olympiad competitions. In preparation for Destination Imagination, in the month leading up to the event teachers devote time for students to develop solutions to Destination Imagination's published challenges (e.g., design and build a bridge and a move a weighted object across it). Then, on the day of the event, students compete as teams to implement solutions to the challenges most successfully and creatively.

Steps of the Destination Imagination Creative Process[13]

1 **Recognize**	2 **Imagine**	3 **Initiate and Collaborate**	4 **Assess**	5 **Evaluate and Celebrate**
Students… • Become aware of the challenge • Gain an in-depth understanding of the challenge	Students… • Generate ideas with team members • Focus on promising ideas • Create project timeline	Students… • Research, explore, and experiment • Commit to options • Build and complete all requirements	Students… • Assess progress • Rework or reimagine ideas • Practice presenting the solution	Students • Present at a tournament • Reflect on and celebrate the experience

Rely on Parent Connections and Local Organizations to Provide Co-Curricular Opportunities for Some Gifted Students

Administrators at District A and District B do not orchestrate community partnerships for middle school gifted students at the district level. However, contacts report that individual middle schools in each district leverage parent connections and local organizations to offer co-curricular programming opportunities. These opportunities may serve many gifted students in addition to general education students at those school sites. Contacts at District A note that individual school sites' resources (e.g., staff willing to oversee the co-curricular opportunities) and operational characteristics (e.g., time in the daily schedule or right after school for students to meet) largely determine program offerings.

Contacts listed multiple community-based organizations—located near these two profiled districts—with which individual district middle schools partner or have partnered in the past.

13)"Vision & Mission," Destination Imagination, accessed February 6, 2020, https://www.destinationimagination.org/vision-mission/.

Examples of Community-Based Programming at Profiled Districts

District A

Partnerships with parents' employers

Contacts reference current or past middle school programming in partnership with:

- NASA
- Northrup Grumman

Partnerships with local higher education institutions

Contacts report that some middle schools allow students to participate in programming hosted by local higher education institutions, geared toward fun, educational experiences for children and adolescents (e.g., journalism, software coding). This programming occurs after school, on weekends, or—in some cases—during day-long sessions that take the place of one regular school day. Contacts note that these programs do not involve credit-bearing coursework.

- Local community college
- Local military academy

District B

Partnerships with arts and athletics organizations

Contacts note that mutliple community-based organizations provide students with enrichment opportunities, including:

- Local children's theatre company
- Local Boys and Girls Club

5) Staffing and Professional Development

Staffing

Gifted and Talented Program Staff Conduct Student Identification, Support Teachers, and Design Coursework

At all profiled districts, contacts highlight teachers as the staff members primarily responsible for delivering services to gifted students. Teachers lead gifted classes, classes with gifted student clusters, and gifted student electives. In District C and District D's state and in District E' state, teachers who work with gifted students must hold specific qualifications. At all profiled districts, these teachers receive training and support from district-level gifted and talented program staff.

All profiled districts employ at least one staff member to oversee gifted and talented programs, including the middle school program, at the district level. The number of central district staff devoted to middle school gifted and talented programs varies based on the size of the district. In addition, some districts employ non-instructional staff members at individual school sites to support school-site gifted and talented programs. Staffing levels across profiled districts suggest that districts with larger enrollments (i.e., more than approximately 10,000 students) should consider employing non-instructional staff members who can support gifted and talented programs on individual school sites.

At all profiled districts, gifted and talented program staff members oversee the testing/identification of gifted students and professional development opportunities for teachers of gifted students. At District A and District C, gifted and talented staff members design or recommend instructional activities for gifted students (e.g., differentiated tasks). For example, at District C, the district instructional specialists travel to the school sites upon teachers' requests to help them optimize their instruction for gifted students. In addition, at District A, district-level program staff consult with teachers and school administrators to determine if gifted students should qualify for grade-level acceleration beyond the district's accelerated math course—a service used only rarely for extremely gifted students.

Middle School Gifted and Talented Program Staff at Profiled Districts

District	Staff Titles
District A Enrollment Range: >75,000	*District Level Staff:* • K-12 Gifted and Talented Program Director (1) • Middle School Gifted Instructional Specialists (13)
District B Enrollment Range: <10,000	*District Level Staff:* • K-12 Gifted and Talented Program Director (1)
District C Enrollment Range: 25,000-49,999	*District Level Staff:* • K-12 Gifted and Talented Program Director (1) • Middle School Gifted Instructional Specialists (3) - Pre-AP/Pre-IB and Curriculum Specialist - SEL and Testing Specialist

	- Identification and Elementary-Secondary Transition Specialist
District D Enrollment: 50,000-75,000	*District-Level Staff:* • K-12 Gifted and Talented Program Director (1) *Site-Based Staff:* • Gifted Services Coordinators (One per school site)
District E Enrollment Range: 10,000-24,999	*District-Level Staff:* • K-12 Gifted and Talented Program Director (1) • Middle School Gifted Instructional Specialist (1) *Site-Based Staff:* • Site-based Gifted Services Coordinators (One per school site on some school sites)

Professional Development

Provide Training on Gifted Education During Designated Professional Development Days and On an Ongoing Basis

District-level gifted and talented program staff at profiled districts provide professional development for teachers of gifted students, including teachers who teach classes for only gifted students, general education classes with clusters of gifted students, and electives for gifted students.

Professional development ensures that all teachers of gifted students implement advanced coursework consistently and thus represents a major component of the gifted and talented program at profiled districts. Across profiled districts, professional development opportunities range from trainings during designated professional development times (e.g., monthly gifted staff meetings, district professional development days) to ongoing, in-classroom support.

Professional Development for Teachers of Gifted Students

Modality: Designated Professional Development Times

District Professional Development Days

Gifted and talented program directors and/or gifted instructional specialists at all profiled districts lead trainings for teachers of gifted students during designated staff professional development days.

These trainings cover topics such as:

- At District A, teachers learn how to score pre-assessments and use student scores to compact the curriculum for gifted students.
- At District B, teachers learn strategies to foster critical thinking.

Monthly Meetings

Gifted program directors lead monthly after-school meetings.

- At District B, the meeting occurs at the central office. Each meeting centers around a topic relevant to teaching gifted students (e.g., test anxiety). Any teacher of elementary and middle school gifted students attends.
- At District E, teachers often co-lead monthly meetings, which all teachers of gifted students attend. Each meeting occurs at a specific school site. When a teacher co-leads the meeting, they share an innovative practice they use to teach gifted students (e.g., adaptions to a curriculum).

Off-Site Expert Trainings

At District E and District C, the gifted and talented program director funds teachers' attendance at off-site expert trainings.

- Any teacher at District E who wishes to attend the weekend-long, state-affiliate National Association for Gifted Children (NAGC) conference may do so.
- Administrators at District C selected a cohort of teachers to receive training from the organization J Taylor Education on the depth and complexity icons framework.

Modality: Ongoing Basis

Instructional Coaching

At District A, district-level gifted instructional specialists travel to middle school teachers' classrooms to respond to requests for support implementing advanced coursework for gifted students. These specialists can:

- Model instruction
- Co-teach
- Observe and provide feedback
- Collaboratively plan lessons

At District E, the district-level gifted instructional specialist spends 15 hours each year in the classroom of every new teacher with gifted students in their classrooms.

On-Demand Webconference

At District B, the gifted program director created an on-demand webconference on differentiated instruction.

- This webconference helps teachers differentiate content for advanced gifted classes. Teachers access the webinar on the district's learning management system.
- Contacts report administrators used similar webconferences published by states (e.g., North Carolina) and NAGC resources to create the webconference.

Non-Evaluative Classroom Observations

At District E, the district's gifted instruction specialist observes staff members who teach gifted students annually.

- The specialist uses the **Classroom Observation Scales and Student Observation Scales** from the William and Mary School of Education
- The specialist uses observations to provide feedback to teachers and to identify teachers using impactful instructional tactics. Then, the specialist asks these teachers to present these tactics to other gifted education teachers at monthly gifted education staff meetings.

Use State Guidelines, If Applicable, Or Teacher Interest and Areas for Development to Determine Trainings Topics

In District C and District D's state, teachers must receive 30 hours of training on specific topics related to gifted and talented instruction before they can teach gifted students. Therefore, gifted and talented program administrators at District D designed teacher trainings for designated professional development days around these topics:

- Nature and Needs of Gifted Students (i.e., definition of giftedness, types of gifted students)
- Identification and Assessment of Gifted Students (e.g., norms, testing, identification practices across the state)
- Social-Emotional Needs of Gifted Students (e.g., anxiety, over-excitability)
- Encouraging Creativity Among Gifted Students (e.g., student participation in robotics competitions)
- Curriculum and Instruction for Gifted Students (e.g., tiered lessons, compacting, depth and complexity, project-based learning)

At District B, the gifted and talented program director considers input from teachers of gifted students to determine the content of teacher trainings. The program director circulated a survey to teachers of gifted students to learn about the topics of interest to them. The program director also identified common areas for development from teacher observations, and subsequently designed trainings around those areas.

6) Research Methodology

Project Challenge

Leadership at a partner district approached the Forum with the following questions:

- What is the structure of middle school students' teacher/class assignments at contact districts?
- In what way—if at all—do administrators at contact districts consider students' gifted status when assigning students to specific teachers or teacher teams?
- In what way—if at all—do administrators at contact districts consider students' gifted status when assigning students to specific classes or clusters within classes?
- What is the delivery model for middle school gifted and talented instruction and services at contact districts?
- What staff members at contact districts oversee and/or deliver middle school gifted and talented services at contact districts?
- What professional development opportunities do contact districts provide for middle school gifted and talented educators and administrators?
- What are the main components of contact districts' middle school gifted and talented programs and services?
- What strategies—if any--do administrators and educators at contact districts use to differentiate instruction for gifted and talented students in regular middle school classes?
- What role—if any—does accelerated coursework play in middle school gifted and talented programs at contact districts?
- Do administrators at contact districts partner with community organizations to provide enrichment opportunities to gifted and talented students in middle school? If so, how?

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Research Parameters

The Forum interviewed administrators who manage exemplary district-wide gifted and talented programs—identified through national- and state-level awards—at the following school districts:

District	Location	Enrollment Range
District A	Mid-Atlantic	>75,000
District B	Northeast	<10,000
District C	South	25,000-49,999
District D	South	50,000-75,000
District E	Mountain West	10,000-24,999

7) Appendix A

Math teachers at District A use pre-unit assessments to identify areas—related to a specific standard—in which students do not require additional practice. Instead of practice problems, for these areas students work on advanced math tasks.

Pre-Assessment Monitoring Chart[14]

Standards: • Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. • Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. • Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities				
Student Name:	**No Response or Incorrect** 0/3 points	**Partially Meets Expectations** 1/3 points	**Approaches Expectations** 2/3 points	**Meets Expectations** 3/3 points
	More practice needed			Advanced math task

Pre-Assessment Question and Answer Key

Pre-Assessment Question	**Part A** Use a ratio table to determine 40% of 30. **Part B** Use ratio reasoning to determine how many cups are in 4 quarts. Teacher Note: Students must show ratio reasoning.
What to Look for in Responses	Students receive 1 point for each look for. Part A: Ratio Table with correct answer of 12 ÷10 X 3 Part | 40 | 4 | 12 Whole | 100 | 10 | 30 Part B: Students must show ratio reasoning. They may use a ratio table to solve. x4 x8 $\frac{1\ quart}{2\ pints} = \frac{4\ quarts}{8\ pints}$ $\frac{1\ pint}{2\ cups} = \frac{8\ pints}{16\ cups}$ x4 x8

14) "Pre-Assessment Monitoring Chart and Answer Key," District A, provided January 22, 2020.