

Challenging Gifted and Advanced Learners Through Differentiated Curriculum and Instructional Strategies

NAGC recognizes that gifted and advanced students have unique learning needs that require modifications to their curriculum, instruction, and environment in order to fully develop their potential. For many gifted and advanced students, the prescribed grade-level curriculum is insufficiently challenging to promote learning unless the pacing and depth of instruction are differentiated. Positive achievement gains, psychosocial benefits, and increased creative productivity over the lifespan occur when gifted and advanced students engage in curriculum that is intentionally matched to their assessed performance or potential (Hattie, 2012; Stambaugh, 2017; Wai et al., 2010). Therefore, NAGC recommends that school districts adopt differentiated curriculum and instructional strategies that are found to be effective with gifted and advanced learners and are culturally relevant and responsive, and that districts provide supports to educators so that they can effectively use these strategies and resources in order to meet the educational and psychosocial learning needs of gifted and advanced students.

Background Research

There are several reasons why differentiation is important to the talent development of gifted and advanced students.

Differentiation is necessary to appropriately serve a diverse student population. Gifted and advanced students are found in all groups. Classrooms are increasingly culturally, economically, linguistically and neurodiverse (NCES, 2024, USDOE, 2021). As such, adjustments to the curriculum, instruction, and classroom environment are essential to address unique strengths.

Differentiation is needed to address the wide range of performance that exists within any grade level. A typical third- to fifth-grade reading classroom represents a range of 9.2 and 11.6 grade levels of performance (Firmender et al., 2013). In math, between one third to almost one half of students in grades 4 and 8 perform significantly below or significantly above their current grade level's expected outcomes (Pedersen et al., 2023).

Differentiation is needed to provide an appropriate curriculum, including instruction that is focused on higher order thinking skills and problem solving, for students already performing above grade level. Many gifted and advanced students spend the majority of their time in the general classroom, reviewing content they have learned or could learn more quickly. Depending on the grade, between 20%-49% of elementary and middle school students perform at least one grade level above in reading, and 13%-47% of students perform at least one grade level above or more in math (Peters et al., 2017).

Differentiation Strategies

There are a variety of researched-based and culturally relevant and responsive differentiation strategies that educators can use with gifted and advanced students. Effective strategies fit into two main categories: acceleration (i.e., moving at a faster pace through content or grades in order to use time appropriately for advanced work) and enrichment (i.e., opportunities to extend and deepen learning). These strategies are implemented *in place of* and *not in addition to* the standard grade level activities, as students document proficiency.

A nonexhaustive list of specific and evidence-supported acceleration and enrichment strategies includes:

- Content-based acceleration such as subject acceleration or adopting the next grade level standards.
- Curriculum compacting (i.e., preassessing and substituting more challenging activities as informed by preassessment data).
- Grade-based acceleration such as grade skipping, telescoping (3 years in 2), early entrance, or subject advancement.
- Replacement of grade-level curriculum with pre-differentiated and evidence-based published curriculum resources.
- Learning environments that cultivate students' psychosocial skills by creating relevant opportunities for growth and by respecting and affirming all students' learning differences, experiences, cultures, backgrounds, interests, and strengths.
- Advanced-level questioning, problem solving, and reasoning (coupled *with* accelerated content, processes, and concepts matched to students' assessed level of performance, as needed).
- Mentoring and guidance focused on cultivating habits of the discipline and creating authentic practices, performances, and products in a field.
- Product or original idea creation with specific criteria and constraints.
- Problem-based and project-based learning (coupled *with* advanced content and more in-depth and complex processes included with the problem, as needed).
- Choices with challenges, as choice alone can be motivating, but may not be as sufficient for promoting achievement without added challenge.
- Integration of abstract conceptual understandings, generalizations, theories, and laws of a discipline as well as opportunities for students to create and test new generalizations.

Recommendations for Practice

To effectively differentiate for gifted and advanced learners, systems need to be in place to support the use of evidence-informed resources and strategies. NAGC recommends that:

- **data are used to inform the curriculum and instructional strategies required** based on students' content area or domains of strength and the level (dose) of intervention needed and the effectiveness of services.
- **a continuum of services across grade levels** is created using system-wide and tiered support structures that include pathways for enrichment and acceleration, varied domain-specific services, and increasing levels of challenge and dose. As teachers cannot be expected to address the learning needs of the wide range of students that exists in a typical classroom, a continuum of services and supports is essential.
- **flexible grouping** opportunities are offered based on readiness and performance so that gifted and advanced students have designated time to work on advanced skills that allow them to move beyond grade-level content that is already known or could be learned quickly.
- **ongoing professional learning** be required for preservice teachers and practicing educators and administrators;
- **school leaders employ highly qualified specialists** in gifted education to work with gifted and advanced students and **to mentor classroom teachers** with implementing effective differentiation practices;
- school leaders **adopt and integrate curriculum resources and frameworks** found effective in promoting achievement gains for students who perform above grade level;
- **decisions regarding differentiation structures include the needs of gifted and advanced learners** and current research-informed practices in the field; and
- **state policies are crafted to mandate and fund gifted education services**, outline evidence-informed service options (e.g., acceleration, differentiation, and curriculum replacement), and require specialized certification for educators working with gifted and advanced learners.

Conclusion

Differentiation is not an option, but a necessity, if students are to engage in the level of challenge needed to advance their learning. All students need opportunities to learn something new on a regular basis, matched to their zone of proximal development. When strategies and resources are implemented effectively and educators are fully supported, all students can find their "just right" learning pathway.

To this end, NAGC recommends that school districts adopt differentiated curriculum resources and instructional strategies that are found to be effective with gifted and advanced learners and are culturally relevant and responsive, and that districts provide supports to educators so that they can effectively use these strategies and resources in order to meet the educational and psychosocial learning needs of gifted and advanced students.

Resources

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Note

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