

The curriculum concept of content modification that guides differentiation

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Introduction

What are the important conceptions about curriculum that gifted educators should use as they embark on program development? After all, our conceptions and assumptions about a phenomenon influence how we respond to it. The most critical understanding that impacts curriculum work has always been how gifted students differ from the norm, and the implications of those differences for curriculum changes. Individual differences research has documented the criticality of understanding that individual students vary greatly from each other in respect to learning rate, the capacity to form complex patterns of thought, and to make connections among stimuli (see Detterman & Thompson, 1997). These documented differences then provide a rationale for curriculum to be responsive and thus **differentiated**. In the most widely used definition of differentiation in the field, curriculum/content modification is seen as linked to the concepts of instruction and assessment for modification as well (see Hughes, Kettler, O'Shaughnessy-Dedrick, & VanTassel-Baska, 2015).

Moreover, we also have over 100 years of research suggesting that there is a need for two types of responses in program organization, regardless of the area of giftedness, and those are **acceleration** and **grouping** (Steenhagen-Hu, Makel. & Olszewski-Kubilius, 2016). In order for curriculum to be successfully altered for gifted students, it must be both advanced to their functional level in some or all areas and delivered in a congregation of other gifted students who can provide additional stimulation for both cognitive and affective learning outcomes.

Most researchers in the field also feel strongly about the need for other elements in good curriculum design, especially as they relate to the goals and outcomes of the curriculum. Passow (1986), for example, valued the inclusion of **moral and ethical leadership** as an outcome for a curriculum for the gifted. Sternberg & Grigenko (2000) have promoted the **teaching of intelligence** as a set of higher level skills to be learned, and Tomlinson et al. (2006) have stressed the value of a parallel curriculum that employs **higher level concepts** as organizing variables. My work has consistently addressed an **integrated curriculum model**, one that includes an emphasis on multiple interrelated goals and outcomes for gifted learners., regardless of level or subject matter (see VanTassel-Baska & Little, 2017).

Yet educators often ignore these basic conceptions of design in the process of delineating curriculum in schools for the gifted. Acceleration is rarely used as a routine treatment for advanced learning capacity, and grouping is often not practiced in ways that promote advanced learning rather than retard it. In the absence of the consistent use of these two differentiation tools, the rest of the differentiation picture is incomplete as both design and implementation hinge on these two factors being adequately addressed. They also are the factors often out of teacher hands as school grouping policies may be dictated by the principal or central office, and acceleration practices employed at the behest of the principal in consultation with parents and other teachers.

Content modification

Providing advanced learning opportunities also requires educators to adjust the curriculum not just in respect to rate and pace but also to level, using relevant diagnostic tools. Thus the concept

of **content modification** is of central importance. The easiest approach to this process is through a diagnostic-prescriptive model, applied to the basic curriculum. The approach, used most often in math and second language learning, could be done in all subjects to ensure that level and rate of learning are addressed. The following checklist may help:

- has the student been assessed for advanced level of learning in math, reading, science, writing?
- has a curriculum match been found to address level of functioning and stage of development in each area?
- have materials been identified for use? (eg. locally developed, commercial)
- has an assessment plan been identified to document the proposed learning?
- have teachers received training in working with advanced learners in content modification strategies?
- have placement procedures been worked out?
- have communication procedures been developed to share decisions for curriculum advancement?
- have relevant content standards been addressed?

Learning through content advancement is the central concept for elementary programs to apply in their programs for the gifted, followed by advanced classes at secondary level. Content modification is often challenging for elementary and secondary programs for the gifted , however. Several reasons seem apparent.

1. Teachers are often not sufficiently trained in content to work at levels beyond where they are teaching, often 2-3 grade levels.

2. Teachers often have not worked on the vertical articulation of standards in order to understand how the process can be standards-aligned.
3. Principals often reject changes being made for some students and not others, making it difficult for teachers to “go it alone” in making student-based decisions about learning.
4. Educator beliefs that all students can do the same level of work at the same time.

Content modification needs to be a routine strategy that teachers use with both individual students and groups of gifted learners. The following table exemplifies the types of modifications needed in each subject area. Such modifications do not all need to be made by teachers if research-based materials are available for use in the classroom since this template has been used in the design of the majority of them.

Template for differentiation of curriculum

- Use **Acceleration** to elevate the level of curriculum stimulus
- Add **Complexity**
- Design in **Depth**
- Incorporate **Critical Thinking**
- Make the challenge more **Abstract**
- Design in **Creativity**
- Employ **Metacognition**

These strategies then become the basis for teacher modification of existing curriculum, in this case a reading passage.

Classroom-based example of content modification

A basic reading passage may illustrate how a teacher could apply these content modification/differentiation techniques. The following short passage engages students in understanding the importance of George Washington to our country's growth and development.

A name that stands out in US history more than many others is George Washington. George Washington was the first president of the United States. He was born in Westmoreland County, Virginia in 1732. As a young man, he was a surveyor. His military career began with his involvement with the Virginia militia, including a notorious mission he undertook to deliver a message to the French in the Ohio Valley from Governor Dinwiddie; he almost lost his life on the return trip home after he fell from a raft into the icy waters of the Allegheny River. Several years later, he was given command of the Virginia militia forces due to his heroism. He resigned in 1758 and returned to his home, Mount Vernon. He married a rich widow, Martha Custis, later that year.

While Washington focused on his farming for the next few years, eventually expanding his 2,000 acre farm to 8,000 acres, he also became involved in politics. He was elected into the Virginia House of Burgesses, and in 1774, he was one of Virginia's representatives in the Continental Congress. When the Revolutionary War began, Washington became the Continental army's commander in chief. He was elected as the first president of the United States in 1789. Washington laid the foundations for the role of a president during his first term; he served a second term, during which his focus was foreign affairs. He refused a third term, and retired to Mount Vernon in 1797; he died two years later.

In order to make the passage more differentiated for gifted learners, teachers may systematically apply the template components below:

1. **Acceleration** of the reading may occur through several approaches.

Perhaps the easiest is to use the online system that upgrades the Lexile level of any nonfiction reading to appropriate levels. This is a good place to start.

Another technique is to assess student Lexile level and locate a more advanced reading on the same subject of Washington.

Advanced work in reading may also be designed, using multiple texts. Ask gifted students to read three commentaries about George Washington so that they may be compared. A third approach might be for the teacher to rewrite the passage so that it focuses on the elements of Washington's accomplishments that she wants to stress and uses more advanced vocabulary.

2. **Complexity** may be added by asking students to do a comparative analysis of the different passages read, analyzing the key factors that made Washington important to our history, synthesizing his contribution in a sentence, and assessing his work in comparison to the next two presidents who followed him. (Written)
3. **Depth** may be accomplished through having gifted students develop an original obituary for Washington that synthesizes his contributions and highlights why he is important to study today.
4. **Critical thinking** may be focused on by ensuring that students have answered the following questions:
 - How was Washington able to lead? What qualities made him a leader?
 - Why did Washington employ the military strategies he did during the

Revolutionary War? Name three approaches he employed and his rationale for each.

--Rate Washington as a president. How effective was he, do you think?

What criteria will you use to rate him?

(Oral or written)

5. **Abstraction** was incorporated through the focus on Washington as a leader where students needed to understand the concept of leadership to complete the prepared activities. If the teacher wanted to make the activities more abstract, she might ask gifted students to apply one of the following concepts to Washington and explain how it was relevant: independent, patriotic, visionary. (Oral or written)

6. **Creativity** was employed in the lesson by giving students choices in the concept of Washington they wished to comment on, and on the obituary to be developed. Teachers might also work with students to craft an individual project on presidential leadership or on the concept of leadership applied to other fields or on ideal leadership qualifications. Ask them to craft a proposal for their project that focuses on goals and outcomes, approaches to doing the project, and how they will assess their work. They also need to

specify whether the project will be a paper/essay, graphic representation of ideas, or a film to visually capture the ideas.

7. **Metacognition** may be employed by the teacher asking gifted learners to comment on the following three questions after doing their work on

Washington:

--What new insights did you gain about Washington the man, Washington the leader? Would you continue to teach him as a model of presidential leadership? Why or why not?

--What did you learn about your capacity to analyze, synthesize, and evaluate information? How would you rate yourself on a 1-5 scale, 5 being high?

--What skills would you like to develop further that would improve your independent project work?

(Oral or written)

This example of the **differentiation/content modification** process illustrates well how teachers may accomplish this task. If they have limited time, they may wish to delete #3 and #6 since both depth and creativity are accomplished through other work being assigned. If they wish to extend the lesson, any of the features may be used as homework assignments with follow-up discussions the next day in class.

The example may also be used as a model for any non-fiction lesson to be employed in the classroom from K-12, with some customization.

Grouping

The best curriculum match to research-based grouping approaches would be either to have gifted students in a special class or to employ cluster grouping in the regular classroom. Either of these approaches might be successful as long as the cluster grouped model has a trained teacher who knows how to modify this same lesson for other students and can apply the open-ended inquiry approach built into the task demands. The example clearly demonstrates how the activities are differentiated for gifted learners and not suitable for all learners in the classroom, given differences in Lexile levels, conceptual levels, and learning rates. Thus content modification appropriate for the gifted must be used with those who can handle the level and extent of the demands of the assignment.

Special needs learners

Gifted students who exhibit characteristics or needs that require accommodations to be made to the proposed advanced lesson on Washington in order to be successful should be worked with individually, and modifications in each aspect of the lesson considered. Accommodations may vary by group or individual student (Baska & VanTassel-Baska, 2018). For example, minority children might benefit from study of Obama as President and use him as the contrast to Washington.

Children from poverty might benefit from additional readings or websites where they can learn more about the idea of leadership and the presidency. Twice exceptional students might require more time on specific aspects of the assignment, especially the written portions or provide oral responses one-on-one rather than in the whole group. These accommodations may or may not be required, given the individual learner.

Conclusion

The purpose of this paper has been to demonstrate what differentiation looks like in the process of redesigning materials to meet the needs of gifted learners. More specifically, it has introduced the core differentiation moves for content modification in order to accomplish differentiation for gifted learners in a lesson on George Washington. It has also addressed the need for grouping gifted learners to efficiently carry out the lesson and to extend the learning.

Our conceptions of curriculum differentiation matter a great deal in how we modify and deliver advanced opportunities for the gifted. The field needs to remain vigilant to ensure that these processes are employed in order to elevate the challenge for the gifted in all of their subject-based learning.

References

Baska, A. & VanTassel-Baska, J. (2018) *Interventions for special needs gifted learners*. Waco, Tx: Prufrock Press.

Detterman, D. & Thompson, L. A. (1997) What is special about special education? *American Psychologist*. Vol. 52, No. 10, 1082-1090 .

Hughes, C. & Kettler, T., Shaughnessy-Dedrich, E., & VanTassel-Baska, J (2014) *The language arts common core standards and gifted education, Volume II*. Waco, TX: Prufrock Press and NAGC.

Tomlinson, C. A., Kaplan, S. N., Purcell, J., Leppien, J., Burns, D. E., & Strickland, C. A., (2006). *The parallel curriculum in the classroom, Book 1: Essays for application across the content areas, K–12*. Thousand Oaks, CA: Corwin.

Passow, H. (1986) Effective curriculum and instructional models for talented students. *Gifted Child Quarterly*, 30, 164-169.

Steenbergen-Hu, S., Malek, M. & Olszewski-Kubilius, P. (2017) What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses. *Review of Educational Research*, 2017, Vol. XX, No. X, pp. 1 –52.

Sternberg, R. J., & Grigorenko, E. L. (2000). *Teaching for successful intelligence*. Arlington Heights, IL: Skylight Training and Publishing Inc.

VanTassel-Baska, J. & Little, C. (2017) *Content-based curriculum for high ability learners*. Waco: Tx: Prufrock Press.