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# Using the Blooms–Banks Matrix to Develop Multicultural Differentiated Lessons for Gifted Students

Michelle Trotman Scott, PhD<sup>1</sup>

**Abstract:** Many classrooms are comprised of students with differing abilities ranging from students with disabilities to students with gifts and talents. While these students are sharing the same space, their differing cognitive levels must be met. Therefore, curricula must be used to meet the needs of the cognitive level that is represented within the class. The Ford–Harris Matrix, introduced in 1999, which merges the works of Benjamin Bloom and James Banks, will be re-introduced using a color code to conceptualize the model. Sample of activities using the Ford–Harris Matrix, along with pros and cons of instructing students within particular quadrants of the matrix, will also be provided.

**Keywords:** Bloom–Banks Matrix, multicultural, differentiation, gifted Black students

The term *differentiate* is used quite often in the field of education, more particularly, the field of special education. Federal law, (Individuals with Disabilities Education Act [IDEA], 2004) mandates that students with disabilities be educated, to the greatest extent possible, in the same environment as their non-disabled peers. Teachers must modify instruction and accommodate students, so that they are able to receive an appropriate education in the general education classroom. On the flip side, students identified as gifted do not have a federal mandate on which they can lean. The Javits Act (U.S. Congress, 1988) supported research-based programs designed for students who were identified as gifted

and talented. The act also strived to utilize resources to aid in the identification and services to those who are traditionally underrepresented (low socioeconomic status, English for Speakers of Other Languages, students with disabilities) in gifted programs and encourage districts to provide equal educational opportunities.

Unfortunately, the Javits Act is currently no longer funded.

This article focuses on differentiation as it relates to gifted Black and Hispanic students. Differentiating instruction is an instructional strategy used in classrooms throughout the nation. However, the content being differentiated most likely focuses on the dominant culture. At this point in time, it *should* be common knowledge that Black and Hispanic students are underrepresented in gifted education classes. Therefore, I argue that all students, more specifically, Black and

Hispanic students would increase their academic performance if the curriculum peaked their interest. This article discusses the curricula and program challenges within general and gifted classrooms as it relates to African American and Hispanic students, Benjamin Bloom's taxonomy and James Banks's multicultural curriculum model. The article also provides an overview of the Bloom–Banks Matrix, also known as the Ford–Harris Matrix (Ford, 2011; Ford & Harris, 1999); introduces a color-coded layout of the matrix; and provides descriptions, and pros and cons for each cell ( $n = 24$ ) and quadrant ( $n = 4$ ).

## Gifted Education Context by Race

Teachers use a multitude of resources to aid in the identification of gifted students. However, the same type of instruction that works with one student or a group of students

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may be ineffective or may not work as well as others. Ineffective instruction leads to poor performance. Moreover, when cultural differences and current curricula and instruction are considered, the likelihood of culturally different students (i.e., Black and Hispanic) being identified as gifted becomes questionable. Just as important, differentiation via multicultural curriculum holds promise for increasing rigor and relevance for gifted Black and Hispanic students, many of whom complain about being disinterested in school and not seeing themselves positively reflected in literature and materials and lesson plans. This model also benefits White students who must learn about culturally different students in rigorous relevance (see Ford, 2011; Grantham, Trotman Scott, & Harmon, 2013).

### Curricular and Learning Challenges and Considerations

The educational performance of all students must be examined frequently to ensure that *all* students have an equal opportunity to receive appropriate education. Teachers should strive to develop a profile of each student's weaknesses and strengths as a means to provide an appropriate education to all gifted students and culturally different gifted students in particular.

The progress of students must be monitored. Teachers should be able to document mastery by identifying the students who learn more efficiently in their areas of strength and interests. Once mastery has been reached and documented, students must be provided with opportunities to continue learning with enriched and advanced materials related to their area(s) of strength and interests (Council for Exceptional Children–The Association for the Gifted [CEC-TAG], 2007). Equally important, all instructional procedures (i.e., materials, lectures, daily assignments, summative, and formative assessments) must be addressed on a consistent, culturally conscious basis. Teachers must ask themselves the following: Do the assignments and materials equally and equitably represent the views of African American and Hispanic American students? Do the assignments contain language that is biased or discriminatory or offensive? Is instruction culturally responsive and respectful (e.g., in the students' preferred learning style)?

### Differentiated Supports and Services

To differentiate instruction, multiple levels of criteria for assignments and outcomes must be assigned to individual students (Tomlinson, 2001, 2009). Instruction for gifted students must be differentiated in the depth, breadth, pace, and complexity of content for students through opportunities outside of what is being offered in the general classroom setting. Gifted students who need intensive services beyond what is offered in the general education curriculum must be provided with differentiated curriculum and instruction. However, as stated earlier, instruction must be implemented in a culture-purposed manner and must embrace the idea that specific student characteristics and profiles strongly influence

their success and must include culturally responsive practices, theories, and research.

When the curriculum is not challenging, a vicious cycle can ensue; students can become disengaged, which can lead to underachievement or disruptive behaviors, including dismissal from the gifted program or suspension/expulsion from school (Grantham et al., 2013; Losen & Skiba, 2010). One way of preventing underachievement from happening is by using a multicultural gifted education approach. & Harris' (1999) and Ford's, (2011) multicultural gifted education approach was conceptualized to increase curricular rigor and gifted students' interest, which in turn will increase their outcomes, thereby leading to an increase in positive student outcomes for all students.

School personnel and curriculum selection teams must carefully examine all resources and materials used to safeguard students from negative representations of specific cultural groups and/or complete omissions from the proposed curriculum (Ford, 2011). The content of the materials must be examined to confirm its authenticity and ensure that the roles reflected do not promote superiority for one cultural group and inferiority for other groups. Finally, the team and teachers must determine whether the materials minimize a cultural group, share only one cultural viewpoint, gloss over particular events, negate the heroic lives of non-Whites, and mainly reflect the stance of a particular social class.

In the following section, the work of Ford's original Bloom–Banks Matrix (Ford, 2011) will be described.<sup>1</sup> An overview of Bloom's Taxonomy and Banks's Model will be provided as well as a description of how to infuse higher level multicultural content (Banks) into the curriculum that is grounded in critical thinking (Bloom).

### Bloom–Banks Matrix (Ford–Harris Matrix): An Overview

Typically, Bloom's Taxonomy is the main resource teachers use to create activities based on the individual and cultural needs of students, while allowing them to gain access to the same content. When used correctly, Bloom's Taxonomy allows teachers to use a variety of activities related to the same academic content and assess students' ability to complete assignments using various levels of critical thinking and problem solving. Using the cognitive domains of Bloom's Taxonomy (see Figure 1), teachers are able to determine if students are able to recollect information presented in the curriculum (knowledge); assess if students recognize the concepts of the curriculum as evidenced by the ability to explain what they learned (comprehension); assess the students' ability to demonstrate what they learned (application); gauge students' ability to understand what was learned by being able to infer, predict, and compare-contrast information (analysis); consider students' ability to use information to develop new, original, and/or improved approaches (synthesis); and decide if students are able to study, judge, critique, and support what was taught and learned (evaluation).

Quadrant 1				Quadrant 2		
Contributions	Students are taught and know facts about cultural artifacts, events, groups, and other cultural elements.	Students show an understanding of information about cultural artifacts, groups, and so forth.	Students are asked to and can apply information learned on cultural artifacts, events, and so forth.	Students are taught to and can analyze (e.g., compare and contrast) information about cultural artifacts, groups, and so forth.	Students are required to and can create a new product from the information on cultural artifacts, groups, and so forth.	Students are taught to and can evaluate facts and information based on cultural artifacts, groups, and so forth.
Additive	Students are taught and know concepts and themes about cultural groups.	Students are taught and can understand cultural concepts and themes.	Students are required to and can apply information learned about cultural concepts and themes.	Students are taught to and can analyze important cultural concepts and themes.	Students are asked to and can synthesize important information on cultural concepts and themes.	Students are taught to and can critique cultural concepts and themes.

Figure 1. Bloom–Banks Matrix; multicultural gifted education Quadrants 1-2.

As stated earlier, a curriculum is not thorough if students are only given the opportunity to think critically and act responsively, but not equitably. The curriculum must provide students with the ability to see the world from the viewpoints of others and/or from more than one perspective. The Bloom–Banks Matrix (Ford, 2011; Ford & Harris, 1999) combines Bloom's Taxonomy of Educational Objectives (Bloom, 1956) and Banks's (2009) Multicultural Infusion model to provide educators with a multicultural gifted education model that reflects the goals, objects, and perspectives of differentiated, gifted, and multicultural education. The result is 24 cells or four quadrants based on the six levels of Bloom by the four levels of Banks (see Figures 2 and 3).

The lowest cell is knowledge contributions (part of Quadrant 1). The highest and most substantive cell is evaluation-social action; this is the cell (part of Quadrant 4) in which all students and teachers are urged to reach, especially since instruction on this level and within this quadrant enables students to engage in the highest level of critical or evaluative thinking *and* multiculturalism. The matrix has been color coded for conceptual reasons (and has been approved by Ford, personal communication, July 15, 2013):

- Red/Stop = Quadrant 1: Low on both Bloom's Taxonomy and Banks's Multicultural level. The content provided within this quadrant rarely provides students with multicultural growth and substance. Instruction is very

common and many students may have been exposed to the similar information in previous settings. When low on Bloom's taxonomy (i.e., knowledge, comprehension, and application) and low on Banks's multicultural levels (i.e., contributions and additive), gifted students may not be challenged in either way. The majority of lesson plans appear to be in this quadrant per Ford (2011 and personal communication)—both colorblind or not culturally responsive and lacking rigor.

- Yellow/Caution = Quadrant 2: High on Bloom's Taxonomy but low Banks's Multicultural Levels. In this quadrant, gifted students use critical thinking and problem solving (i.e., analysis, synthesis, and evaluation) with superficial multicultural content (i.e., contributions and additive). Ford (2011) contends that this quadrant is common in gifted education, which she equates to being colorblind.
- Blue/Guarded = Quadrant 3: Low on Bloom's Taxonomy but high on Banks's Multicultural levels. In this quadrant, little critical thinking and problem solving are involved. However, students are provided with the opportunity to view cultural events, concepts, and themes through the lens of others. Social action may take place, but it is not likely to have much impact. The curriculum provided to students elaborates on events, facts, and characteristics of culturally different groups, enabling them to become more aware of and gain additional and meaningful



Quadrant 3			Quadrant 4			
	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Transformation	Students are given information on important cultural elements, groups, and so forth, and can understand this information from different perspectives.	Students are taught to understand and can demonstrate an understanding of important cultural concepts and themes from different perspectives.	Students are asked to and can apply their understanding of important concepts and themes from different perspectives.	Students are taught to and can examine important cultural concepts and themes from more than one perspective.	Students are required to and can create a product based on their new perspective or the perspective of another group.	Students are taught to and can evaluate or judge important cultural concepts and themes from different viewpoints (e.g., racially and culturally different groups).
Social Action	Based on information on cultural artifacts, students make recommendations for social action.	Based on their understanding of important concepts and themes, students make recommendations for social action.	Students are asked to and can apply their understanding of important social and cultural issues; they make recommendations for and take action on these issues.	Students are required to and can analyze social and cultural issues from different perspectives; they take action on these issues.	Students create a plan of action to address a social and cultural issue(s); they seek important social change.	Students critique important social and cultural issues and seek to make national and/or international change.

Figure 2. Bloom-Banks Matrix; multicultural gifted education Quadrants 3-4. Source. Adapted from Ford (2011).

Quadrant 1	
Knowledge/Contribution	
Name 3 medical procedures performed first by minority professionals.	
Pros	Cons
<ul style="list-style-type: none"> <li>• Students will be able to recall the names of minority medical professionals.</li> <li>• Students will be exposed to procedures first performed by professionals.</li> </ul>	<ul style="list-style-type: none"> <li>• Students will list procedures but will not be required to expound upon the procedures.</li> <li>• Students will not be required to discuss theories about why minorities are underrepresented in the medical profession.</li> <li>• Teacher only discusses superficial content (names).</li> </ul>

  

Quadrant 2	
Evaluation/Addition	
Predict the next lunar eclipse using African-American Benjamin Banneker's calculations.	
Pros	Cons
<ul style="list-style-type: none"> <li>• Students will be able to identify the works of Benjamin Banneker.</li> <li>• Students will be able to remember Banneker's calculations.</li> </ul>	<ul style="list-style-type: none"> <li>• Information learned about Banneker will be superficial or may be information of which students are already aware.</li> </ul>

Figure 3. (continued)

Quadrant 3	
Comprehension/Transformation	
Develop a case-story of successful minority mathematicians and scientists	
Pros	Cons
<ul style="list-style-type: none"> <li>Students will be able to put themselves in the place of and reflect upon the representation of minorities in STEM areas. They will also be able to draw conclusions as to what made them successful.</li> </ul>	<ul style="list-style-type: none"> <li>The plan may not address possible reasons for the shortage of minorities in STEM areas.</li> </ul>
Quadrant 4	
Synthesis/Social Action	
Develop an apparatus that you feel will enhance the ground-controlled radar system and share it with your local airport.	
Pros	Cons
<ul style="list-style-type: none"> <li>Students will be able to recreate an apparatus invented by Dr. Luis Alvarez, a Latino American scientist.</li> </ul>	<ul style="list-style-type: none"> <li>None. This activity provides a high level of multiculturalism and rigor.</li> </ul>

**Figure 3. Examples of activities, strengths and weaknesses of color-coded quadrants.**

knowledge about different groups. Thought processes required in this quadrant are higher than the yellow and red quadrants. Here, the cultural rigor is substantive.

- Green/Go = Quadrant 4: High Bloom's Taxonomy *and* High Banks's Multicultural Levels. In this quadrant, students think critically, solve problems, and review a multitude of multicultural topics, issues, and themes—and, they seek to make social change in some way. Curriculum is rigorous *and* relevant, and students think and solve problems at the highest levels; they are exposed to content that validates non-White individuals and groups. This is the more impactful quadrant for all students.

### Putting the Bloom–Banks Matrix to Use

Now that an explanation of the Ford–Harris Matrix has been provided, I will share a color-coded matrix and quadrant guide with definitions of activities (see Figures 1 and 2). Also, I will share examples of activities within each quadrant of the matrix along with the strengths and weaknesses of instructing students within particular matrix quadrants (see Figure 3).

The goal of multicultural gifted education is to challenge and engage all students. Thus, teachers must use curriculum to enable gifted students to engage in critical thinking, problem solving, and rigorous multicultural lesson plans. As teachers examine the level of complexity and multiculturalism in their curricular choices and their mode of instruction, they will become more efficacious in developing and implementing differentiated lessons using higher levels of both the Bloom and Banks approaches.

Lessons that are meaningful and use higher levels will maintain the interest of gifted students—rigor and relevance. Relative to differentiation, this model is useful in mixed-ability

classrooms where teachers are able to present the same content on differing levels, thereby enabling all students to experience meaning and success on a level that meets their individual and/or cultural needs. All of the quadrants support critical foundation work that aids all gifted students as they delve into deep, rigorous multicultural content.

Differentiation, done the correct way, meaning the rigorous and culturally responsive way, will enable all students to increase their levels of knowledge and skills in their area(s) of strengths and they include advanced or accelerated multicultural educational options.

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### Note

- I am retaining the original Bloom–Banks Matrix (aka Ford–Harris Matrix) based on the request of the creator Donna Y. Ford (personal communication, December 20, 2013).

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