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Developing a Curriculum Model for Differentiating Instruction for All Learners

Emma Riemenschneider
University of Arkansas, Fayetteville

Developing a Curriculum Model for Differentiating Instruction for All Learners

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By

Emma Riemenschneider

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University of Arkansas

ABSTRACT

The purpose of this study was to determine what types of teaching strategies most engage gifted and talented (GT) students. This study poses the question, "How can classroom teachers engage gifted and talented students while not advancing past the abilities of non-gifted and talented students?" Two surveys were developed and administered to public school teachers and students. The teacher participants of this study were nine classroom teachers at a junior high school in the northwestern part of the state. The student participants of this study were 99 seventh and eighth graders at a junior high school in the northwest part of the state. The teacher participants were asked questions about which current methods they use to differentiate curriculum and instruction for GT learners. The student participants were asked questions to determine what type of classroom learning and environment they preferred. The teacher survey revealed that GT students are typically not receiving specialized instruction outside of their GT programs. This means that a student could potentially go all but one hour of the day without engagement, which has serious repercussions on learning and retention. In the regular classroom, there are some difficulties teaching, engaging, and assessing the growth of GT students. The student survey results indicated that most students prefer more creative and group projects and assignments and that GT students are often unintentionally alienated by their teachers and peers. A curriculum model was created to guide teachers in creating instruction that engages all students. It was implemented in five classrooms, each with positive feedback about manageability and sustainability.

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INTRODUCTION

All students should be challenged to learn. However, not all students are equally challenged or engaged. Who are gifted learners? Gifted learners "demonstrate outstanding levels of aptitude or competence in one or more domains" (Conklin, 2015, p. 16). The National Association for Gifted Children Position Statement defines giftedness that guides best practice as "a group of students high-ability students [that are] challenged at levels not reflecting their current performance or their capabilities" (Callahan et al., 2015, p. 4). Gifted students might also be considered "those exhibiting superior performance in a particular domain relative to peers" (Worrel et al., 2019, p. 552). Barbara Clark, a researcher in the field, considers giftedness "the brain's ability to integrate functions in an accelerated manner and is expressed through cognition, creativity, academics, leadership, visual arts, or performing arts" (Conklin, 2015, p.13).

It has been recognized that gifted students at the high school level are far less likely to remain engaged in a more extensive and generalized classroom. As a result, they can sometimes feel isolated socially and alone (Vidergor and Harris, 2015). Research is limited to a generalized curriculum framework that general education teachers can use at the high school level to address the needs of gifted students. If such a framework existed, this would be an excellent way for high school educators to slightly modify their currently existing curriculum for gifted learners. With a differentiated curriculum in a regular classroom, all students will receive more individualized instruction.

Statement of the Problem

Gifted and talented students find 40 to 50 percent of their content redundant in the traditional classroom (Callahan et al., 2015). Educators and administrators should place more

emphasis on reaching gifted students. According to Worrell, Subotnik, Olszewski-Kubilius, and Dixson (2019), gifted students are already an underserved group. The federal government does not specify funding for gifted education programs, so there is no guarantee that these students benefit from educational reforms. Because of this issue, it is important that students who fall into the gifted and talented demographic receive instruction that challenges and stimulates their minds more individually. An example of a curriculum that could be used for gifted learners alongside a curriculum for non-gifted learners is differentiated instruction. Callahan, Moon, Oh, Azano, and Hailey (2015) describe that the differentiated instruction model adjusts three specific areas of the curriculum: content, process, and product; these things are modified based on student interest, learning profile, and readiness to introduce different curricular and instructional methods to challenge students. Using differentiated instruction in the regular high school classroom will challenge gifted students, keep them more consistently engaged in their learning, and help them expand their knowledge.

Differentiated curricula for gifted students can include curriculum compacting, ability grouping, or accelerated instruction (Conklin, 2015). The researcher believes that the best resource for this curriculum modification would be a teaching model that can be adjusted depending on the grade level and lesson plan. This model will resemble a lesson plan template that will include enrichment for gifted students. There will be specific instructions for providing attention to gifted students while addressing non-gifted students' needs.

Purpose and Significance of the Study

This study aimed to seek the perspective of teachers and GT students about what methodology is most successfully engaging in the classroom. The study was designed to create an instructional and curriculum model for classroom teachers that engages GT students without

neglecting the needs of their peers. After data was collected from the junior high teachers and students, the researcher developed a curriculum model that could be implemented in any regular classroom. This research is obtained from students nearing high school age and teachers who have taught at the secondary level in various school districts. This research highlights the methodology that GT students and non-gifted and talented students prefer and the teaching methods that classroom teachers prefer to use in mixed-ability classrooms. This research can be used not only for engagement of all ability levels of students but could also be used to determine preferred retention and assessment methods for mixed-ability classrooms. The curriculum model that the researcher created after analyzing the teacher and student data results was intended for teachers to modify and adjust to meet the needs of their students. The curriculum model was used by five teachers at a junior high school, and their feedback about the manageability and sustainability was provided to the researcher.

Limitations

The following limitations of the research project are made:

1. The study is limited to one group of teachers in a junior high school in Northwest Arkansas.
2. The study is limited to one group of students in a junior high school in Northwest Arkansas.

Definition of Terms

The following definitions will assist readers in gaining a better understanding of this study:

Differentiated Curriculum: content organization with evaluative tools that fit the learning environment while meeting the individual needs of students (Durak & Guyer, 2018).

Differentiated Instruction: [teaching] methods of meeting the ranging ability levels and intellectual needs of all students (Callahan et al., 2015).

General Education Classroom: a class with mixed ability learners.

Gifted and Talented Students: "[students] with above-average ability, a high level of task commitment, and creativity" (Conklin, 2015, p. 13).

Integrated Curriculum Model: a curriculum model, i.e., a lesson plan framework, that can be easily used in a range of general education classrooms to meet the academic needs of all students present.

Review of Literature

Gifted Students

Definitions of giftedness vary. For example, the National Association for Gifted Children defines gifted learners as "those who demonstrate outstanding levels of aptitude or competence in one or more domains (any structured areas of activity with its own system and/or set of sensorimotor skills)" (Conklin, 2015, p. 16). Giftedness can also mean a high IQ or cognitive ability. The identification of these individuals is difficult. Methods including IQ tests, achievement tests, teacher recommendations and various other measures have been used to try and identify gifted students; the only concrete conclusion that has been made is that developing criteria for giftedness is nearly impossible (Worrel et al., 2019). Identifying gifted students is also subjective to the school district and state (Conklin, 2015). The federal government does not support instruction for students classified as gifted; therefore, it is less common than other special education programs. Less than 0.5% of the federal education budget is allocated to gifted education programs (Worrel, et al., 2019). Major studies cite curricula for GT students can be adapted to all learners through content acceleration (VanTassel-Baska & Wood, 2009).

A significant amount of content in a general education classroom is unnecessary for gifted students. On average, half of what gifted students are learning is somewhat of a review (Callahan et al., 2015). Gifted students learn faster and at a more in-depth level than other students (Conklin, 2015). Gifted students are sometimes not intellectually stimulated in class. Their ability to problem solve and develop new ideas is not used as often as it should be. A term to describe this occurrence is "gifted underachievement," the difference between the student's potential and actual performance. This is a "frustrating loss of potential for society." Additionally, this disinterest in learning can adversely affect student self-image and create low

self-esteem (Bennett-Rappel & Northcote, 2016, pp. 407-409). It is difficult for students of a higher aptitude to be engaged and motivated by curriculum that they have already mastered, just like it is rare that a gifted student will find curriculum that is delivered at a pace much slower than they can comprehend interesting (Vidergor & Harris, 2015).

Curriculum Models

There are many grievances that the professional community has with the currently existing curriculum for gifted students. Some of these are as follows: failing to utilize data from gifted students, stopping at state and national standards for gifted students, not differentiating materials for gifted students, and placing curriculum creation responsibility solely on teachers (VanTassel-Baska, 2015). Differentiation is a particular problem in the administration of gifted education. It is a strategy that educators sometimes do not consider (Callahan et al., 2015). When gifted programs fail to engage gifted students and result in an ineffective experience, it is likely because the instructor did not adequately prepare the curriculum for the student (Lee, 2018).

The Gifted Kids program of study is a successful program for GT students. The curriculum goals are to enable students to work together to: take on new challenges, engage in abstract learning, learn about themselves as gifted students, and strengthen their gifts and passions. Curriculum for gifted learners should involve broader concepts, higher-level thinking skills and emphasize students' understanding of how they think (Bate et al., 2012). Teachers should always provide students with the opportunity to ask questions. Teachers can be facilitators of learning when they provide even a few questions for students to move from a lower (convergent) level of cognition through a mid-level (divergent) and higher level (evaluative) (VanTassel-Baska, 2021). Engaging gifted students should be done via supplemental materials and various texts, and relevant skills and knowledge should be included in the

curriculum. Students should be encouraged to grow in their cognitive skills and other skills as well (Lee, 2018).

A differentiated classroom model has four distinct characteristics: an ongoing assessment, flexible grouping, active exploration, and concept-focused content (Conklin, 2015). When choosing a differentiation strategy, three criteria should be considered: the lesson's purpose, the time allowed for the learning concept, and how effective the strategy will be with the students (VanTassel-Baska, 2021). Teachers can learn about differentiating instruction through professional development. Information sessions should be short and easily comprehensible (Jackson, 2016).

Differentiated instruction is an instructional method that is molded to fit the needs of individual learners. The model successfully caters to the intellectual needs of students by being modified in three ways: content, process, and product (Callahan et al., 2015). Differentiated instruction has proved beneficial to gifted students in the past. It stimulates gifted students when teachers cater content to individual students (Lee, 2018). A research study was conducted on two "underachieving gifted" students (Bennett-Rappell & Northcote, 2016) where their growth in a creative writing program was tracked, and their enthusiasm and participation were noted. The findings suggested that differentiation is useful when the students' individual learning needs are considered, and the curriculum is adaptable. To ensure that gifted students receive instruction to meet their individual learning needs, advanced and accelerated materials, projects and research methods, and in-depth creativity should be used and encouraged in the classroom (VanTassel-Baska, 2013). Differentiated curriculum is an effective way to expand content (Lee, 2018). To effectively create a differentiated curriculum, metacognition, higher-level thinking, intra- and

interdisciplinary connections, and authentic assessments should all be used (VanTassel-Baska et al., 2002).

A curriculum model is deemed successful if there is evidence that teachers are receptive of the methodology, learning products are of high quality, it is easily implemented, the model is sustainable, it applies to actual curriculum, it aligns with national standards, and it is comprehensive (VanTassel-Baska & Brown, 2007). When designing a curriculum intended for gifted learners, the curriculum should be differentiated in relation to the ideas, methodology, learner response, and learning environment (Gross et al., 2015).

There are several characteristics of a successful curriculum model. A curriculum model might incorporate higher-order thinking on the part of students or even problem-based instruction (VanTassel-Baska, 2013). In Science, Technology, Engineering, and Mathematics (STEM), the use of "Maker Space" can provide students with the ability to thrive (VanTassel-Baska, 2021). An example of an integrated model that was used among GT students is the CLEAR Model; this methodology involves "continual formative assessments, clear learning goals, data-driven learning experiences, authentic products, and rich curriculum" (Callahan et al., 2015).

Methodology

Purpose

The purpose of this study was to seek the perspective of teachers and GT students about what methodology is most successfully engaging in the classroom. The study was designed to create an instructional and curriculum model for classroom teachers that GT students without neglecting the needs of their peers. The survey was distributed to nine teachers in a local public junior high school. In addition, a different survey was distributed to 99 students in the same local public junior high school. The post-survey teacher curriculum model was distributed to four teachers at a different junior high school to determine the effectiveness of the curriculum model (See Appendix E).

Participants

The first survey was distributed to teachers in a local school in northwest Arkansas, while the second survey was distributed to students. In addition, a pilot test was conducted by a small sample of teachers in the district. The purpose of the pilot test was to ascertain if there were any confusing or misleading questions. The survey was distributed electronically to both groups. The participants for this study were junior high school teachers in a school of 670 students. The survey was distributed at the beginning of the fall semester. Data was collected during the fall and spring semester. The survey addressed the following questions:

1. In what school district/s have you been a teacher? Please list.
2. How long have you been a teacher? Please count this academic year (2021-2022).
3. Did any of the districts provide gifted services? Yes/No
4. If you answered "Yes" above, what were the gifted services? Please list.

5. Do you feel that there are difficulties teaching gifted students in a general classroom? Yes/No
6. If you answered "Yes" above, what are these difficulties? Please list.
7. What is the biggest difference, in your opinion, between catering instruction to gifted and non-gifted students? Please describe.
8. How do you gauge gifted student engagement and retention, and is that different from how you approach non-gifted students? Please describe.
9. Is there a specific issue that you think hinders the learning capabilities of gifted students in a regular, public school classroom? Please describe.
10. Is there anything else you think I need to know about creating instructional methods for gifted high school students?

Data Collection

The surveys received institutional approval from the University of Arkansas Institutional Review Board (see Appendix A.) The teacher survey is found in Appendix C and the student survey is illustrated in Appendix D. The students were given an informed consent letter that stated participation was completely voluntary and anonymous (see Appendix B). One hundred percent of the teachers participated in the study. The school administration approved the list of teachers. In addition, 68.75 (99 of 144) percent of students that received a consent form had permission from their guardian and then participated in the research study. The surveys were developed using Google Forms. Once parent permission forms were collected, students accessed the survey using a pre-determined URL given to them by their classroom teacher.

Results of Teacher Data

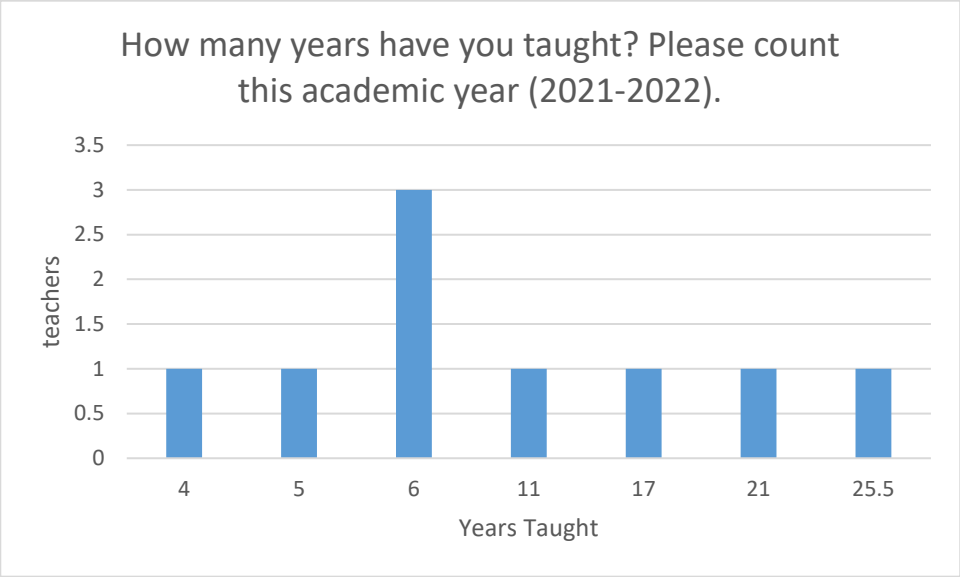
This section provides an analysis of data collected from the participating teachers in the school. The data collected from the students follow in the next section.

Research Question 1: How many years have you taught?

Figure 1 shows the number of years taught by each teacher participant. One (11.11%) teacher has taught for four years; one (11.11%) teacher has taught for five years. Three (33.33%) teachers have taught for six years; one (11.11%) teacher has taught for 11 years. One (11.11%) teacher has taught for 17 years; one (11.11%) teacher has taught for 21 years: one (11.11%) teacher has taught for 25.5 years.

Figure 1

How Many Years Have You Taught?

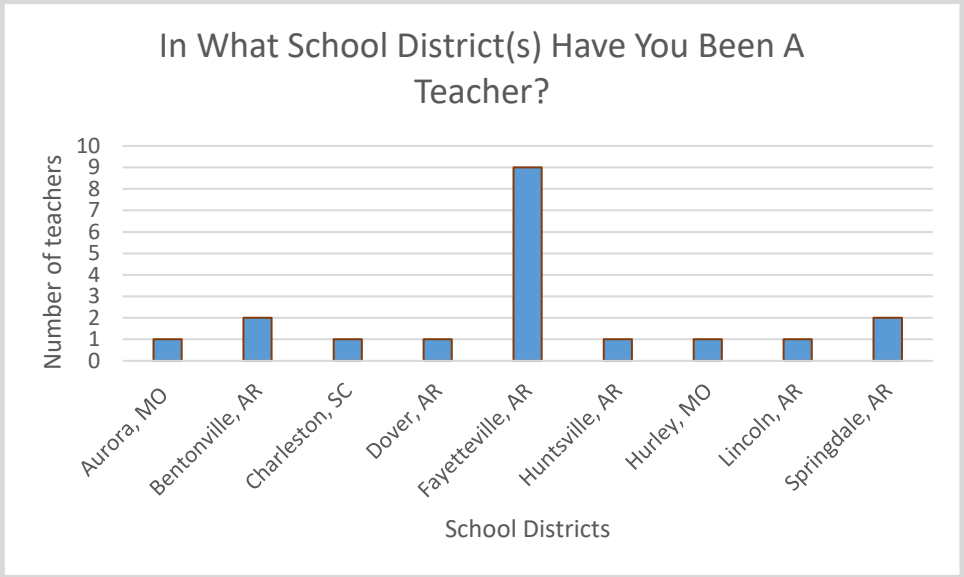


Research Question 2: In what school district have you been a teacher?

Figure 2 illustrates the school districts where the teachers have been employed. The teachers that were surveyed were asked what school district(s) they have taught in. Teachers listed all cities they had taught in. All nine (100%) teachers have taught in Fayetteville, AR; two (22.22%) teachers have taught in Springdale, AR; one (11.11%) in Aurora, AR; one (11.11%) in Bentonville, AR; one (11.11%) in Charleston, SC; one (11.11%) in Dover, AR; one (11.11%) in Huntsville, AR; one (11.11%) in Hurley, MO; and one (11.11%) in Lincoln, AR.

Figure 2

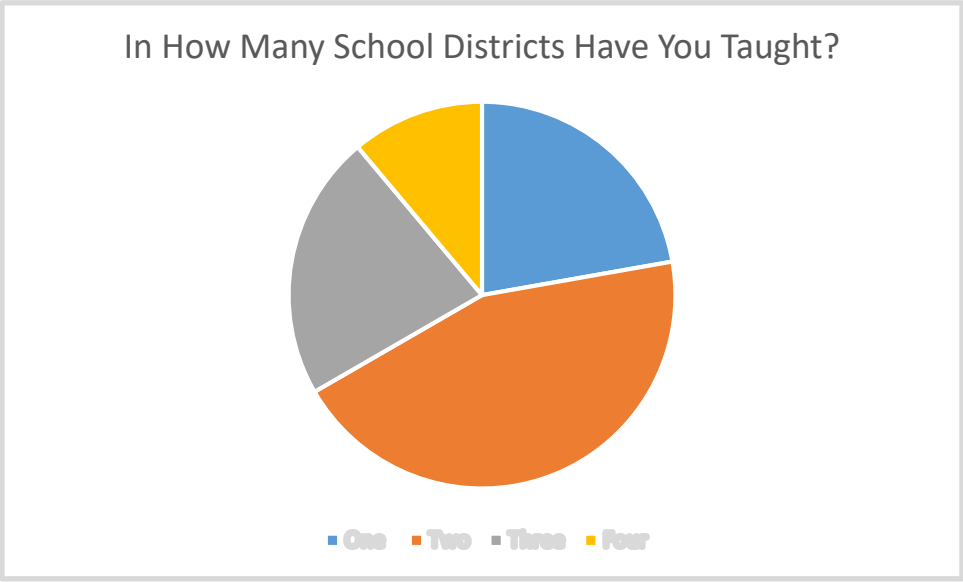
In What School District(s) Have You Been a Teacher?



The teachers have taught on average in 2.22 school districts each. However, of the nine teachers surveyed, two (22.22%) teachers have worked in only one school district; four (44.44%) teachers have worked in two districts; two (22.22%) teachers have worked in three school districts; one (11.11%) teacher has worked in four districts.

Figure 3

Districts Taught In

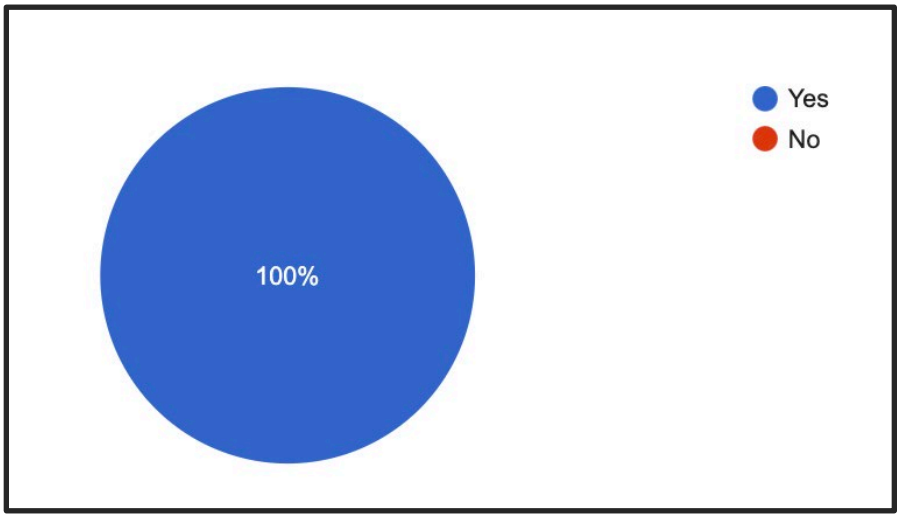


Research Question 3: Did any districts provide gifted and talented services?

Figure 4 below shows that all nine (100%) of the surveyed teachers said that yes, all districts they have worked in provide GT services.

Figure 4

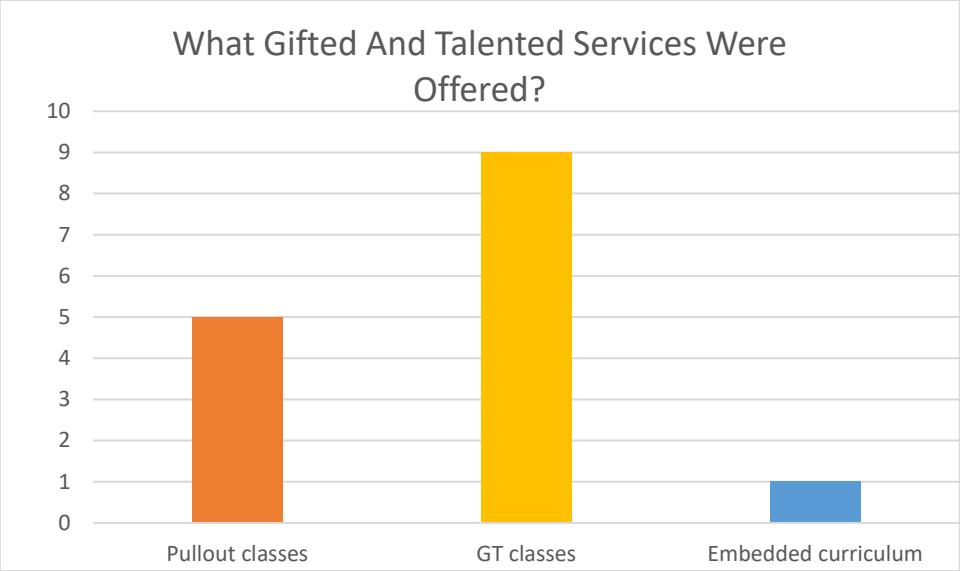
Did Any of the Districts Provide Gifted and Talented Services?



The teachers were asked to elaborate on the GT services their district(s) provided. Teachers provided a short answer response, and each fell into one (or more) of three categories: pullout classes, GT classes, or embedded curriculum. All nine (100%) teachers said GT classes; five teachers (55.55%) said pullout classes; and one teacher (11.11%) said embedded curriculum. Figure 5 below identifies the GT services that were offered.

Figure 5

What Gifted and Talented Services Were Offered?



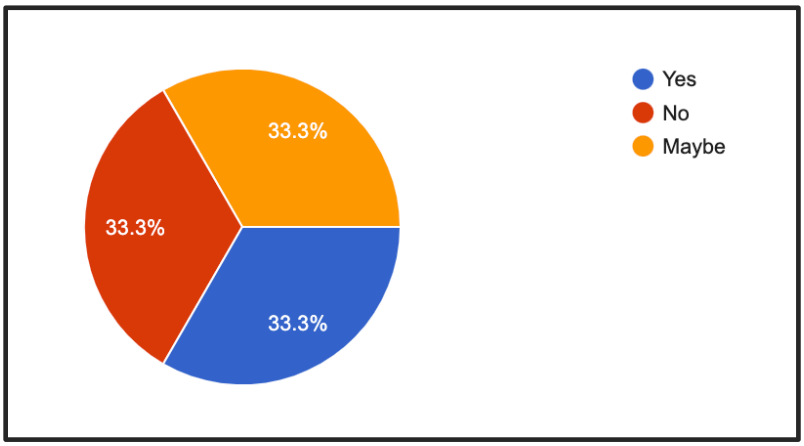
Some of the teacher responses to the question included, "We have a program for 7th [grade] that pulls students weekly, and for 8th grade, that is an actual class that they go to daily." Another teacher stated, "Pull out until 8th grade, then embedded in high school; [my current school] recently began a seminar for 8th grade." Another example of a teacher response was "Gifted and Talented pull-out classes for enrichment or a class period elective selected by students."

Research Question 4: Do you feel that there are difficulties teaching gifted and talented students in a general classroom?

Of the nine teachers that were surveyed, three (33.3%) said yes, there are difficulties teaching GT students in a general classroom; three (33.3%) said no, there are not difficulties teaching GT students in a general classroom; and three (33.3%) said maybe, there might be some difficulties teaching GT students in a general classroom. Figure 6 below illustrates the data reported by the teachers.

Figure 6

Do You Feel That There are Difficulties Teaching Gifted and Talented Students in a General Classroom?



While the data reflected an even distribution one teacher that answered "Yes" and "Maybe" elaborated that "depending on the district's program for GT it can be difficult," or that "the [GT] students don't care about their grade and don't do their work." The teacher who shared the latter response also said, "The other side of that is they finish their work so quickly that they need enrichment, which is difficult to provide." Another teacher shared that "If GT students are pulled out of honors classes, it is harder for them to stay on top of the work if they are absent all

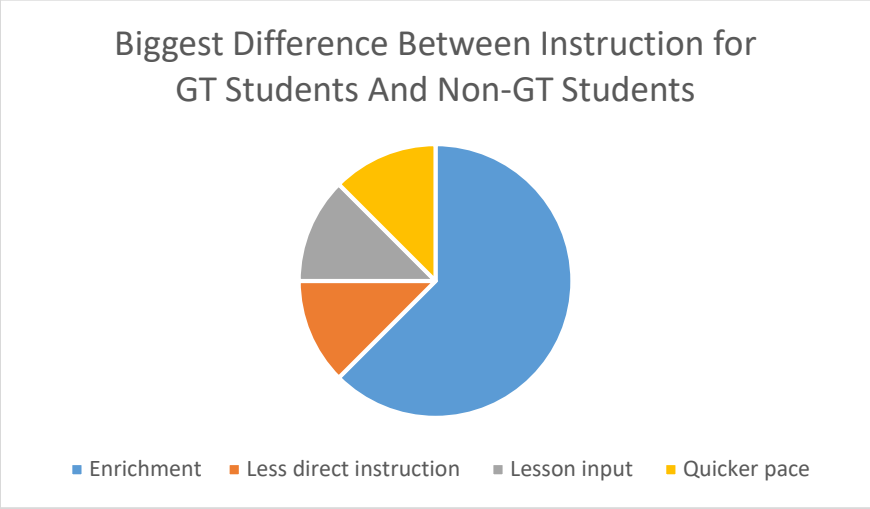
the time. Other than that, they work fine." Similarly, one teacher said that "Class lessons are usually taught for the average ability leveled student or, even worse, the least capable student. Higher achievers are often forgotten."

Research Question 5: What is the biggest difference, in your opinion, between instruction to gifted and talented students and instruction to non-gifted and talented students?

The teachers were asked to describe their perspective on the difference between instruction to GT and non-gifted and talented students. Of the nine teacher responses, five (55.6%) teachers described enrichment as a unique need that GT students have; one (11.1%) teacher described less direct instruction as a unique need that GT students have; one (11.1%) teacher described student lesson input as a unique need that GT students have; lastly, one (11.1%) teacher described a quicker pace as a unique need that GT students have. Figure 7 below illustrates the differences reported by the teachers.

Figure 7

Biggest Difference Between Instruction for GT Students and Non-GT Students



One of the teachers that said enrichment was the biggest difference between instruction for GT students and non-gifted and talented students also shared that "GT students typically like

to think more outside of the box." Another said, "To challenge GT students, things have to be introduced and created with their ability level, creativity, and strengths." Still another teacher shared that "Being able to provide adequate and engaging extensions can be the biggest difference.

"One teacher that believes that enrichment is the biggest difference in instruction for GT students wrote that "GT students need higher-level questioning and the ability to be surrounded by others of the same kind. Ability grouping from an early age would solve this issue for the most part, but alas, this is forbidden in the earlier grades. GT students are inquisitive and need to think more outside of the normal curriculum."

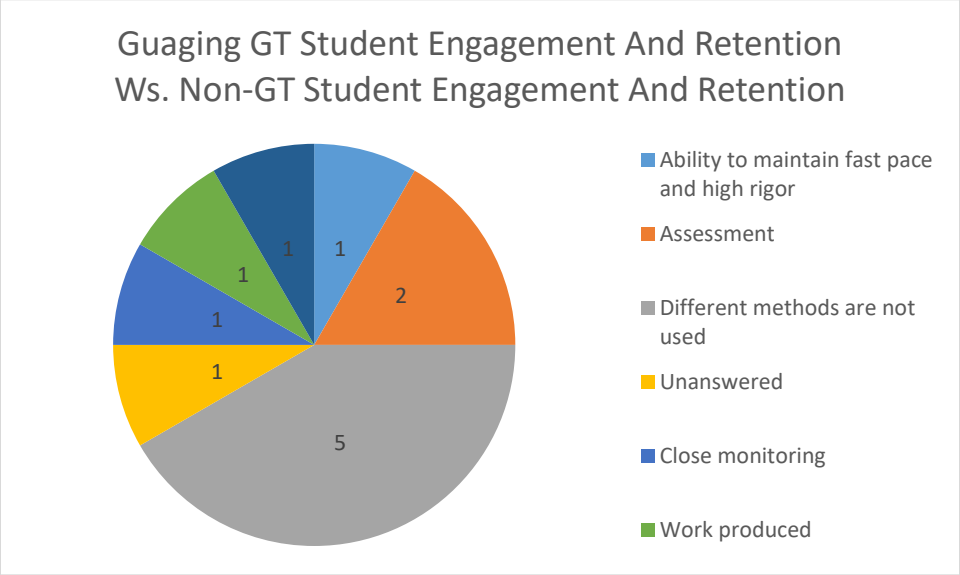
Research Question 6: How do you gauge gifted and talented student engagement and retention, and is that different than how you approach that of non-gifted and talented students?

As illustrated in Figure 8, teachers were asked to explain their methods of gauging engagement and retention of their GT students. In addition, they were encouraged to describe the difference between how they determine GT student engagement and retention and non-GT student engagement and retention.

Of the nine teachers that responded, five (55.55%) of teachers said that they do not use different methods; two (22.22%) said assessment; one (11.11%) said the student's ability to maintain a fast pace and high rigor; one (11.11%) said close monitoring; one (11.11%) said work produced; one (11.11%) said student input; and one (11.11%) did not answer.

Figure 8

How Do You Gauge Gifted and Talented Student Engagement and Retention, and is That Different Than How You Approach That of Non-Gifted and Talented Students?



Some of the teacher responses to the question were "Retention [of GT students and non-GT students] is gauged the same way. Engagement is gauged the same way, but is more difficult to meet the level of engagement needed." A different teacher said, "I assess their work and monitor closely."

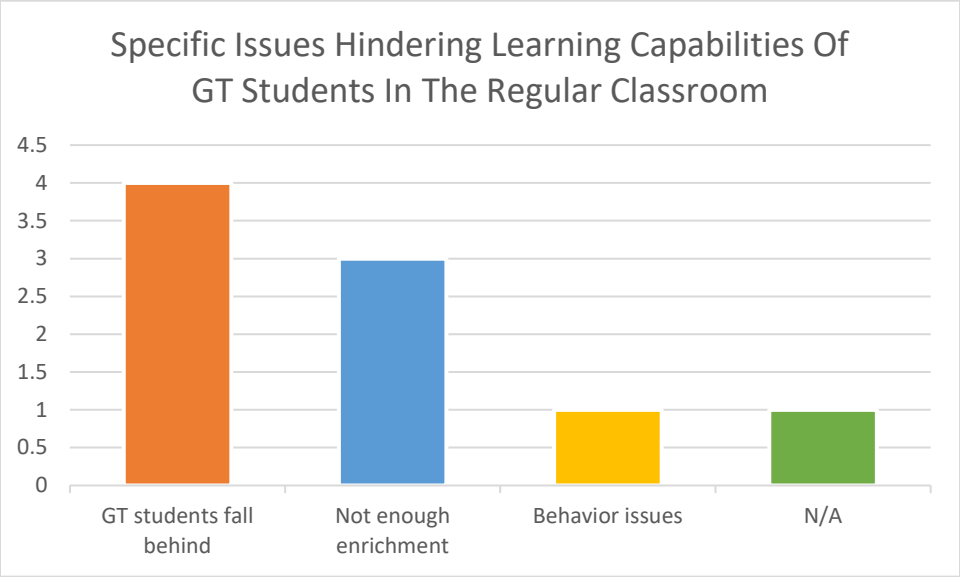
Research Question 7: Is there a specific issue that you think hinders the learning capabilities of gifted and talented students in a regular, public school classroom?

Teachers were asked if they believe there is a specific issue that hinders the learning capabilities of GT students in a regular, public school classroom. The teachers provided a variety of descriptions about obstacles GT students face. Four (44.44%) said GT students fall behind because of their pullout classes; three (33.33%) said there is not enough enrichment; one

(11.11%) said overall behavioral issues keep GT [and all other] students from learning; one (11.11%) did not answer. A chart below (Figure 9) illustrates the data reported.

Figure 9

Is There a Specific Issue That You Think Hinders the Learning Capabilities of Gifted and Talented Students in a Regular, Public School Classroom?



One teacher that believes GT students are missing out on enrichment said, "If I teach to the majority or middle, adding rigor for those [GT students] is difficult. It makes it look as if they are getting more work instead of more challenging work." Another said, "I think that there are times that these [GT] students are not being challenged for growth."

Research Question 8: Is there anything else that you think I need to know about creating instructional methods for high school gifted and talented students?

Before submitting the survey, the teachers were asked if there was anything else to add to the study. One teacher said, "Think about how to differentiate your lessons to include more

choice and more opportunities for inquiry. Both of those can really reach the GT population." Another teacher said, "In Fayetteville [AR], and probably more districts, there is no GT program per se. AP classes are offered in place of GT. By the time gifted students are in 9th grade, they are able to select classes that should, theoretically, push them. However, high school and even many college courses, do not satisfy that need. Luckily, the Internet exists to offer them productive sources of information. Most high school GT students would not like to be singled out in high school, as they will fear that it will be taken as "bragging" or "elitism." Once again, ability grouping should help satisfy this."

RESULTS OF STUDENT DATA

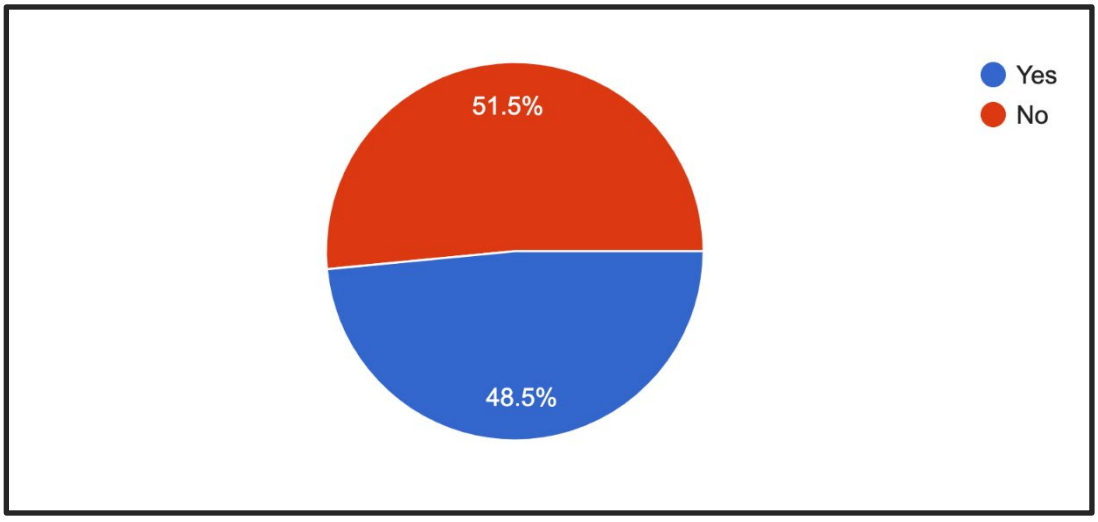
This section provides an analysis of data collected from the participating students in the school.

Research Question 1: Did you or are you attending a gifted and talented program?

The students were asked if they have been or are currently involved in a gifted and talented program. Of the 99 responses, 51 (51.5%) answered "Yes," and 48 (48.5%) answered, "No." Figure 10 below illustrates the distribution of students who have or are presently enrolled in a GT program.

Figure 10

Did You or Are You Attending a Gifted and Talented Program?

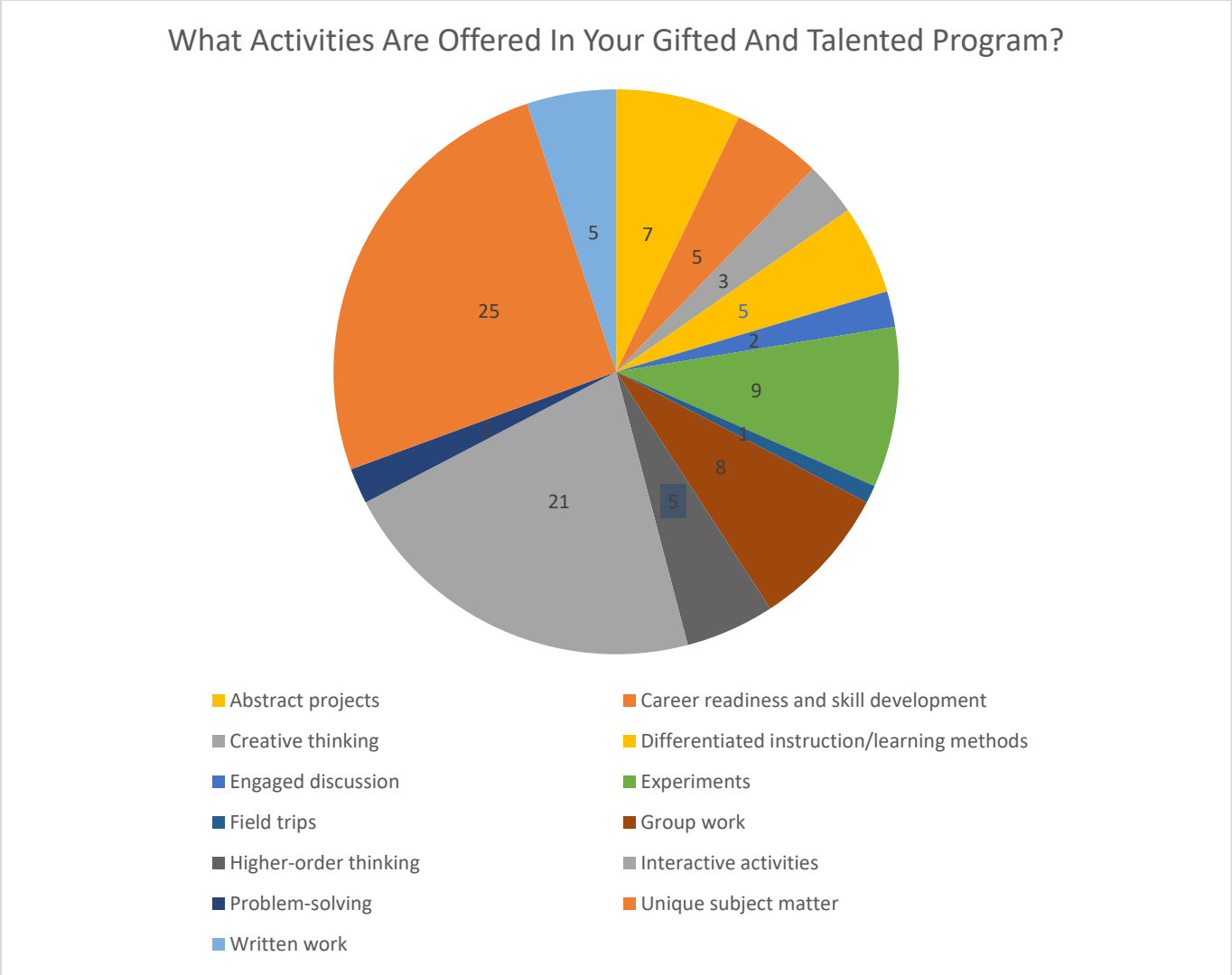


The students were also asked to respond to the following question: *If you answered "Yes" above, what types of activities are offered in your gifted and talented program?* The students who indicated that they had been or are currently in a GT program were asked to describe what

activities they participated in at their GT program. The students provided a written response and indicated one or more of the following responses. Of the 51 students that answered "Yes" to the preceding question ("Did you or are you attending a gifted and talented program?"), 25 (49.02%) answered unique subject matter; 21 (41.18%) answered interactive activities; nine (17.65%) answered experiments; eight (15.69%) answered group work; seven (13.73%) answered abstract projects; five (9.8%) answered career readiness/skill development; five (9.8%) answered differentiated instruction/learning methods; five (9.8%) answered higher-order thinking; five (9.8%) answered written work; three (5.88%) answered creative thinking; two (3.92%) answered engaged discussions; two (3.92%) answered problem-solving; finally, one (1.96%) answered field trips. The chart below (Figure 11) illustrates the breakdown of responses.

Figure 11

What Activities Are Offered in Your Gifted and Talented Program



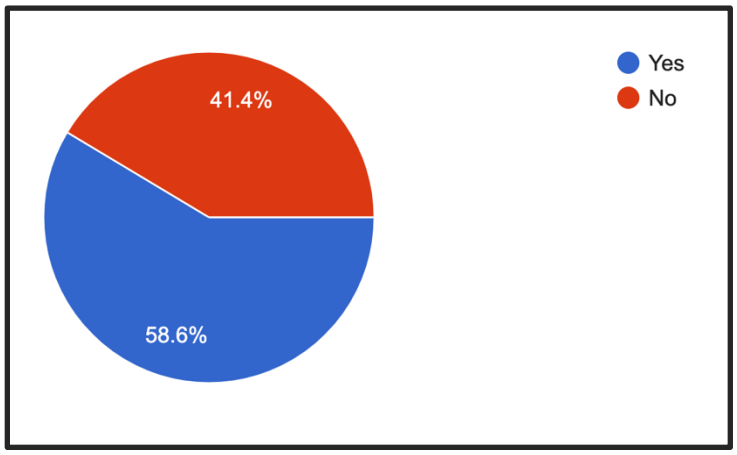
One student said, "[We do] activities that help stimulate our thinking and change the way we think about things, for example, we have been doing psychology." A different student said, "We are offered a lot of cool activities like learning how to knit and participate in disease simulations. It's really fun because it gives us a new, fresh, fun thing to learn about."

Research Question 2: Have you ever heard the term "gifted and talented" used in one of your classes?

As shown in Figure 12 below, students were asked if they had ever heard the term GT before. Fifty-eight (58.6%) students said that yes, they had; 41 (41.4%) students said that no, they had not.

Figure 12

Have You Ever Heard the Term "Gifted and Talented" Used in One of Your Classes?

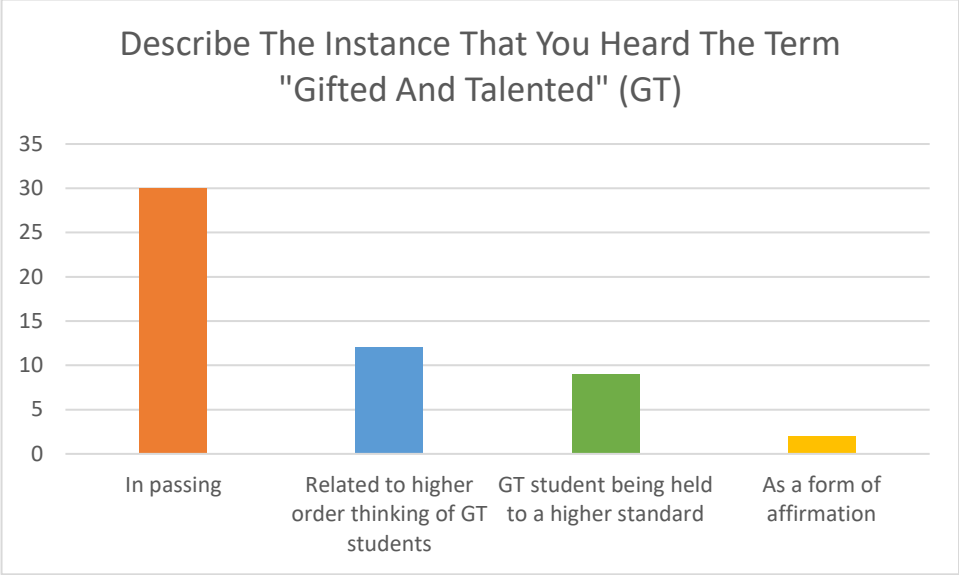


Students were asked to respond to the next question *If you answered "Yes" above, describe this instance.* The students who indicated "Yes" to the question "Have you ever heard the term 'gifted and talented' used in one of your classes?" were prompted to describe how they had heard the term being used. Sixty-seven responses were provided. The student responses that were not simply describing what "GT" stood for fell into one (or more) of four categories. Thirty (44.78%) students said they heard the term in passing; 12 (17.91%) students said they heard it in relation to the higher-order thinking of GT students; nine (13.43%) students said they heard it when a GT student was being held to a higher standard than other students; finally, two (3%)

students heard "GT" used as a form of affirmation in the classroom. Figure 13 below illustrates the responses by the students.

Figure 13

Describe the Instance That You Heard the Term "Gifted and Talented"



One student that indicated that they had heard GT students being held to a higher standard said, "A teacher expected me to get my work caught up in a day after I was sick because I'm gifted and talented." Another student said, "It was mainly used to describe us as 'smarter,' but I don't think that's true."

One student said, "To me, gifted and talented means people that have extra talents that other people might not have so that makes the person gifted." One student responded, "It's [the gifted and talented program] for creative students, not necessarily smart students."

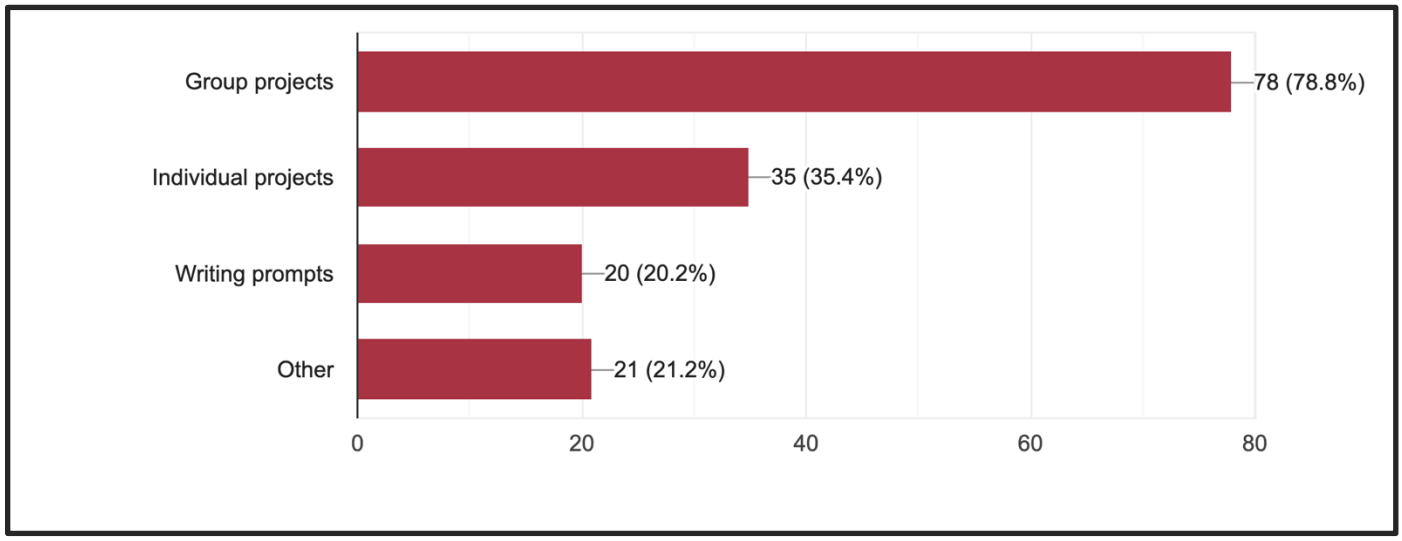
Research Question 3: What types of activities in your class are most engaging?

All students were asked to choose at least one of four activities that they considered to be most engaging in the class. Seventy-eight (78.8%) students chose group projects; 35 (35.4%)

students selected individual projects; 20 (20.2%) selected writing prompts; finally, 21 (21.2$) students chose other.

Figure 14

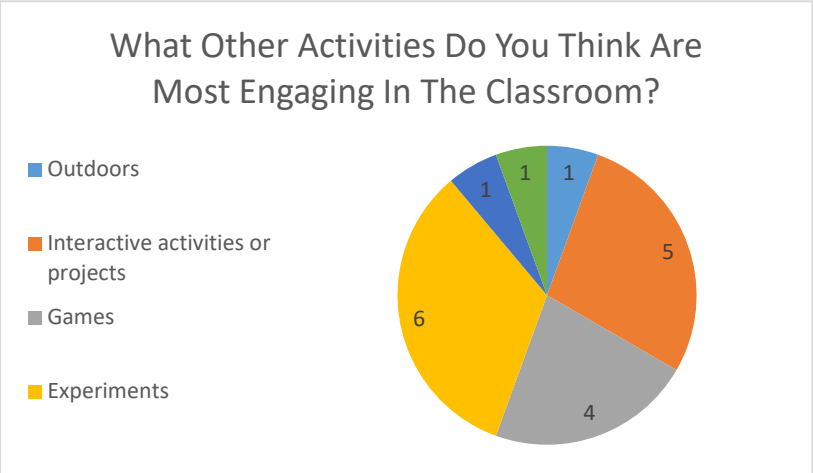
What Types of Activities in Your Class Are Most Engaging?



The students that selected "Other" when asked, "*What types of activities in your class are most engaging?*" were provided the opportunity to explain the activity(ies) that they think are most engaging. Of the 37 students that provided a response that didn't roughly translate to, "I did not answer 'other,'" six (16.22%) students answered experiments; five (13.51%) students answered interactive activities or projects; four (10.81%) answered games; one (2.7%) student said outdoors; one (2.7%) student said discussions; and one (2.7%) student said research. Figure 15 below illustrates the breakdown of other activities students think are most engaging in the classroom (see Figure 15).

Figure 15

Other Activities Reported as Most Engaging in the Classroom



One GT student said, "Often in GT class we have fun discussions that go along with the topic we're learning about; in regular classes, group projects are the most engaging for me. But I like individual projects more because I don't have to talk to people as much, and I can decide what to do with the project."

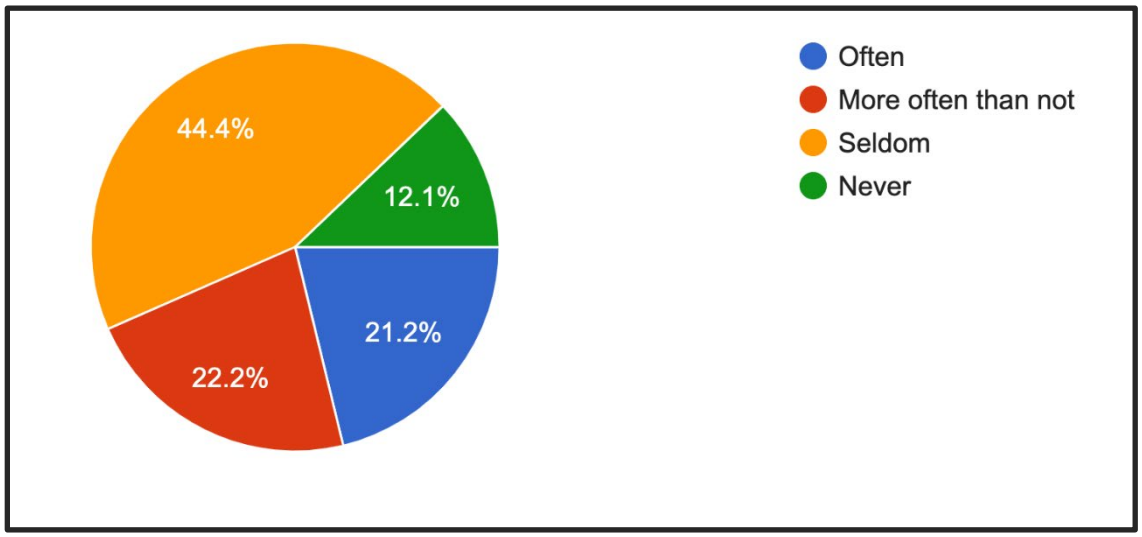
Another student that responded said, "[I find it most engaging to] design stuff. I really like to come up with blueprints and ideas for building projects. And games, too. Like class games that help you learn about whatever is being taught. I've found I learn better when I can interact with what I'm trying to learn. Physical things." One student that responded said, "Honestly, I've never done a project in GT that wasn't interesting. That's a broad statement, but it's definitely true."

Research Question 4: Do you find yourself bored in class?

The students were asked if they found themselves bored in class. Twenty-one (21.2%) students selected often; 22 (22.2%) students selected more often than not; 44 (44.4%) students selected seldom; the remaining 12 (12.1%) students selected never (see Figure 16).

Figure 16

Do You Find Yourself Bored in Class?

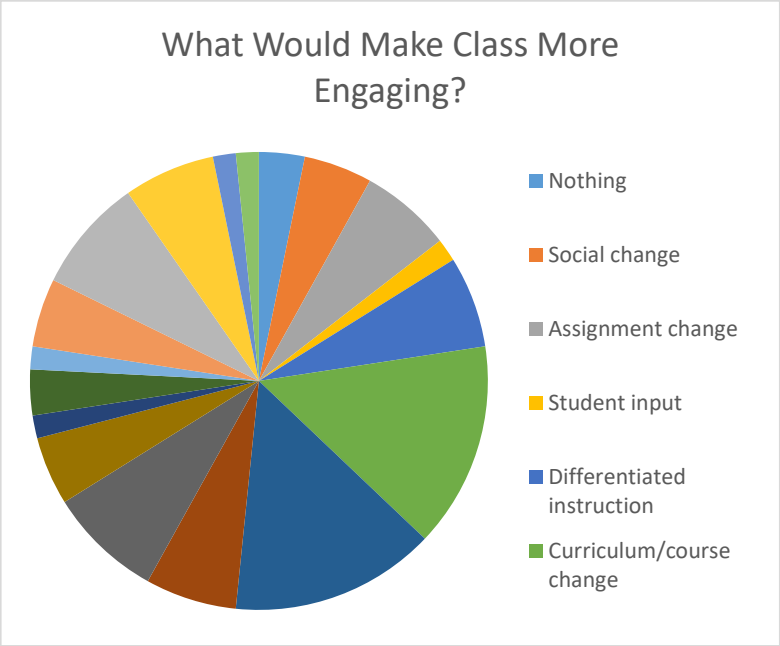


Students were also asked *If you answered "Often" or "More often than not" above, what do you think would make you feel differently?* Students that answered that they were bored in class "often" or "more often than not" had the opportunity to describe what would engage them in class. Fifty students responded and provided a written response. Nine (18%) students indicated interactive activities; nine (18%) students indicated curriculum/course change; five (10%) students indicated group projects; five (10%) students indicated that they did not know what would make them feel more engaged; four (8%) indicated an assignment change; four (8%) indicated differentiated Instruction; four (8%) indicated discussions; four (8%) indicated more/better teacher involvement; three (6%) indicated a change in classroom environment; three

(6%) indicated a social change, or being with their friends; three (6%) indicated more/more challenging work; two (4%) indicated less work; two (4%) indicated nothing; one (2%) indicated academic support; one (2%) indicated a creative outlet; one (2%) indicated more relevant coursework; one (2%) indicated the opportunity to listen to music in the classroom; finally, one (2%) indicated student input on learning (see Figure 17).

Figure 17

What Would Make Class More Engaging?



One student that leaned more towards better/better teacher involvement said, "Well, I don't find any of my classes entertaining except band. Band is where I have a bunch of friends and where I can just be myself. In other classes, I'm mostly quiet because I have no friends in that class or I just hate the teacher in that class. So maybe we can change that by the teachers being enthusiastic when they teach or something like that." Similarly, one student said, "My

mood in class depends on the teacher's mood or voice because if I heard the teacher was mad, I would get scared or sad, not paying attention in that class much.

One undecided student responded, "I don't know. I just don't like school, so it gets boring, and I know most of the stuff they are telling me about so it becomes repetitive and boring." A different student answered, "If they let us do more fun and different things compared to the same old crap they teach us every single year. Like let us learn how to do stuff we will use in the real world, like help us study for our driver's ed test, etc."

Research Question 5: What do you like most about learning in the classroom?

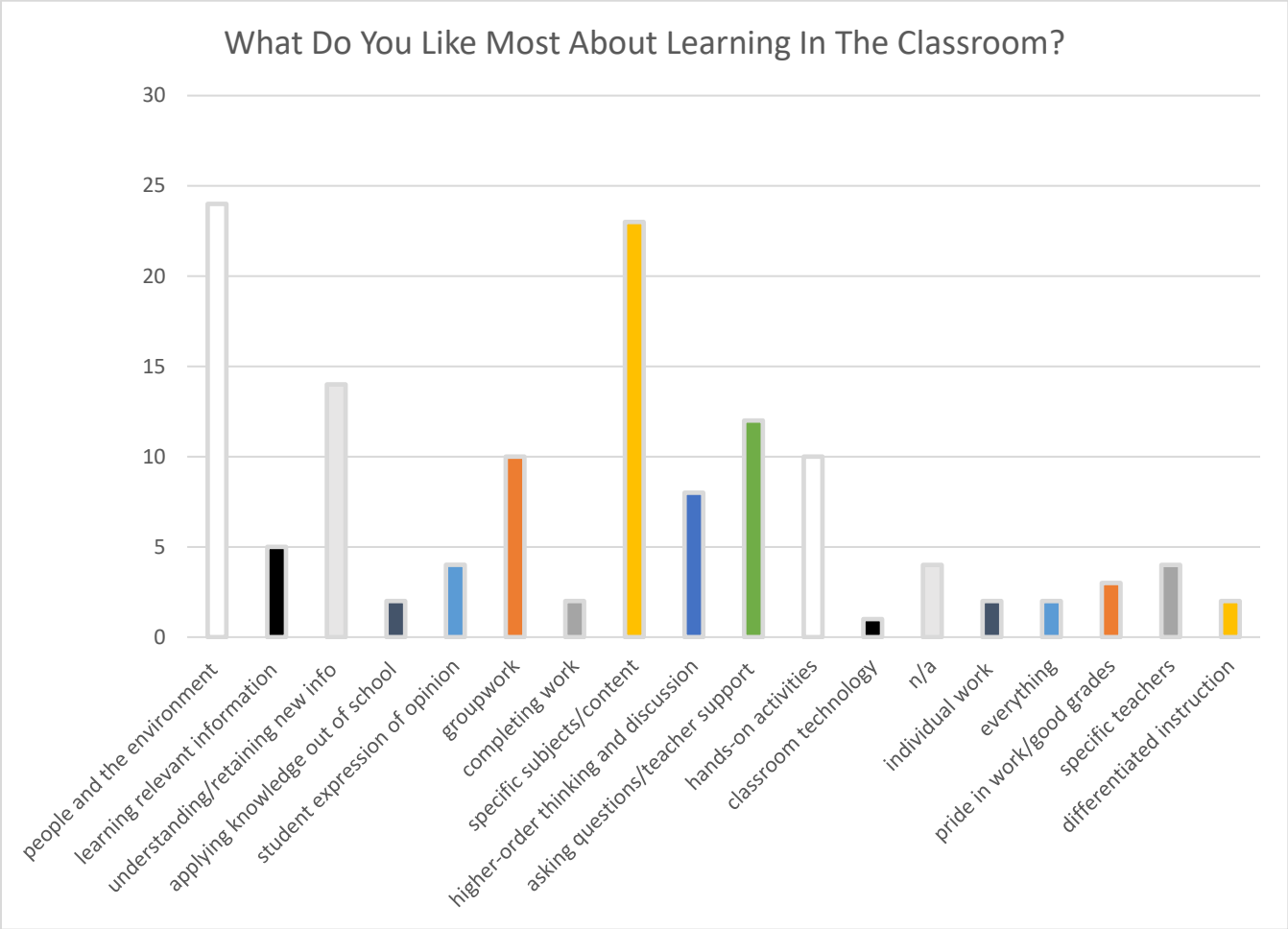
The students were asked to submit a short answer to "*What do you like most about learning in the classroom*?" Several students interpreted this as opposed to virtual learning, but the answers were relevant, nonetheless. Ninety-nine students submitted a response, and their answers each fit into at least one of the following categories.

Twenty four (24.24%) students answered people and the environment; 23 (23.23%) students answered specific subjects or content; 14 (14.14%) students answered understanding or retaining new information; 12 (12.12%) students answered asking questions or having teacher support; ten (10.10%) students answered groupwork; ten (10.10%) students answered hands-on activities; eight (8.08%) students answered higher-order thinking and discussion; five (5.05%) students answered learning relevant information; four (4.04%) students did not answer; four (4.04%) students answered specific teachers; four (4.04%) students answered student expression of opinion; three (3.03%) answered pride in work or good grades; two (2.02%) students answered applying knowledge outside of school; two (2.02%) students answered completing work; two (2.02%) students answered differentiated instruction; two (2.02%) answered everything; two (2.02%) answered individual work; finally, one (1.01%) answered classroom

technology. Figure 18 below illustrates students' responses on what they like most about learning in the classroom.

Figure 18

What Do You Like Most About Learning in the Classroom?



One student shared, "I like knowing answers and understanding work. I also like applying my knowledge from learning when I am outside of school." Another positive student responded, "My classroom has great peers and a great environment so we can get pretty lively at times, which always makes the already fun learning process even more fun."

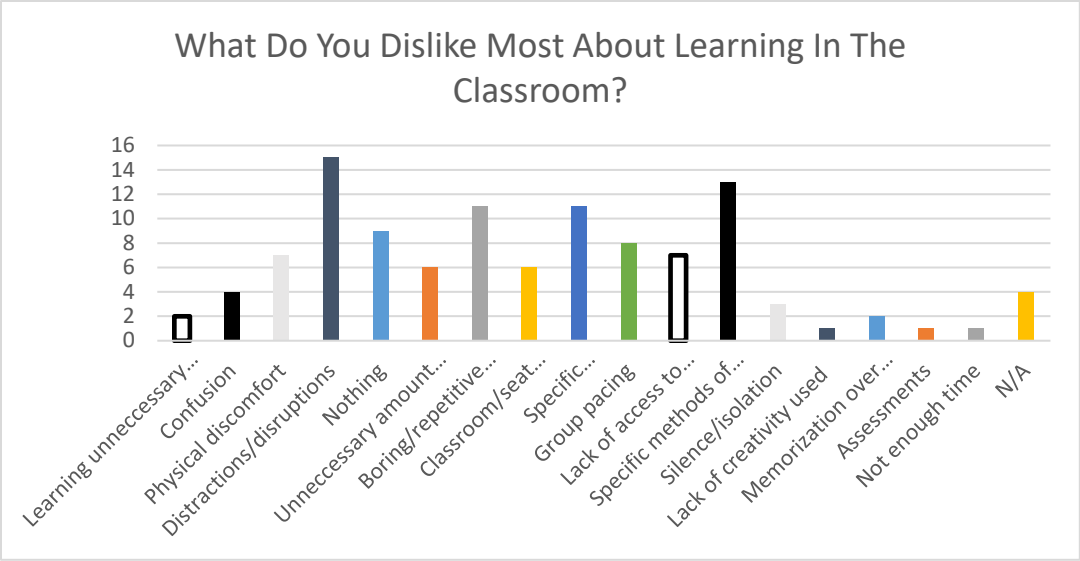
One student said, "The thing I like most about learning in the classroom is solving deep problems that don't usually have an exact answer, which makes you think more about the problem." A different student said, "[I like] individual work, being able to see things from multiple perspectives and have good conversations over things only with people I am comfortable with."

Research Question 6: What do you dislike most about learning in the classroom?

As their final survey question, the students were asked, "*What do you dislike most about learning in the classroom*?" Again, all 99 students provided a written response (see Figure 19).

Figure 19

What Do You Dislike Most About Learning in the Classroom?



Fifteen (15.15%) students said distractions or disruptions; 13 (13.13%) students said specific activities or methods of instruction; 11 (11.11%) students said boring or repetitive classwork; 11 (11.11%) said specific content or subjects; nine (9.09%) students said nothing; eight (8.8%) students said group pacing; seven (7.07%) students said lack of access to help or other issues with teachers; seven (7.07%) students said physical discomfort; six (6.06%) students

said confinement to their seat or the classroom; six (6.06%) of students said an unnecessary amount of work; four (4.04%) students said confusion; four (4.04%) students did not provide an answer; three (3.03%) students said silence or the isolation of doing work individually; two (2.02%) said the learning of unnecessary information; two (2.02%) students said memorization over understanding; one (1.01%) student said assessments; one (1.01%) student said the lack of creativity used; finally, one (1.01%) student said not enough time.

One student responded, "I attended the Fayetteville Virtual Academy for a year and a half, and it worked extremely well for me, as I was very self-directed and organized. I really enjoyed being able to work ahead of the usual pace. I miss those aspects of school and wish we were more able to work ahead and do our own research."

TEACHER FEEDBACK ON CURRICULUM MODEL

After data was collected from the junior high teachers and students, the researcher developed a curriculum model that could be implemented in any regular classroom. The curriculum model was developed after analyzing the teacher and student data results. The curriculum model was used by five teachers at a junior high school, and their feedback about the manageability and sustainability was provided to the researcher. The five teachers taught courses in the areas of Science, History, Spanish for Native Speakers, Debate, and Family and Consumer Sciences.

The teachers were asked the following questions before implementing the new strategies offered by the researcher. The questions and a summary of their responses are below.

What students typically finish activities or assignments early, seem bored, or read or do work from other classes? Responses ranged from teachers indicating their students seldom finish early to just a few students may finish early.

What students are typically more independent in your class and require little individual guidance? All the teachers responded that the higher reading levels and above-average students require little individual guidance. One teacher responded that the more independent students are usually self-motivated and require little feedback and guidance.

How have you measured student engagement previously? Responses included "question prompts, exit tickets, and mini labs," "asking follow-up questions and exit tickets," "I have Go Guardian and watch students work," "I use observation of the students and reviewing their work. Disengagement is usually visible." One teacher responded, "Previously, I have asked students open-ended questions throughout the lesson. I typically do some form of an assessment at the

end of class to measure students' understanding of the content. I have students show me thumbs up/thumbs down to gauge their understanding."

Which of the above strategies could make the majority of your students most successful? Responses ranged from "I do writing prompts at the beginning of class" to "peer teach, think-pair-share of their ideas." Other responses included "I liked the pacing activity" to "HOT questions." Another teacher expanded on the HOT question by stating "Hot questions would introduce students to the bigger picture and extend their thinking of the concept. Mixed-ability grouping would also make my students more successful. I already see some of my more gifted students helping other students. If I were more intentional in grouping students, I believe it would make all students more successful."

The teachers were provided teaching strategies to implement. After implementation, the teachers were asked the following questions. A summary of their responses is included.

Were your GT students more engaged or for a longer period of time? All the teachers responded that their students were more engaged for a longer period of time. One teacher responded, "Today I facilitated a cooking lab with my students. Typically, I let students choose groups instead of intentionally grouping them. Today, I assigned groups. I used mixed-ability grouping so my gifted students could guide their peers through the lab, especially the parts that are more difficult. Instead of my gifted students completing the lab early and standing around with nothing to do, which was the usual, they were busy teaching their peers and also completing their own tasks in the kitchen. I also implemented HOT questions throughout the cooking lab. I asked these questions with the intention to expand students' learning and understanding of the content. The students who typically answered questions quickly and without much thinking time had to take time to think and were not the first ones to answer."

Did these strategies allow you to provide individual instruction to students that needed it while other students continued working? All of the teachers responded positively. One teacher stated “Yes, I had time to focus on helping two or three students in each class.” Several other teachers had similar responses. Another teacher stated, “Yes. Using mixed-ability grouping, I was able to provide one on one instruction for my students with special needs. Having my gifted students in separate groups allowed them to guide and instruct their peers while I was proving individual instruction."

Did these strategies allow for your students to express their creativity? All of the teachers responded that the strategies allow for their students to express their creativity. Teacher responses varied from "Yes, as well as self-expression and confidence" to "Yes. We did a read aloud story where students got up and moved." One teacher stated, "Very much so. I think several of the responses from the students were insightful. We also developed a deeper understanding of the characters as human in the performance pieces." Another teacher responded, "I felt that my lab groups as a whole felt more confident in the kitchen because they had one or more gifted students in their groups who were confident in their abilities from the beginning. This led to all other students expressing their creativity or questions because feedback came from a peer instead of a teacher. The HOT questions I asked allowed my gifted students, who may not always be creative, to get out of their comfort zone and be creative in their answers. My questions were also more abstract and open-ended rather than straight forward, and that also caused all students to think harder and be more creative in their feedback."

Did your students seem generally more pleased with the learning environment because of these strategies? Teachers responded that their students seemed more livelier with more student engagement. Responses included, “They did. It was livelier and more enjoyable, " “There was a

lot of laughter and student engagement," “I think so based on my observations and listening to how they responded to the questions" and “Some of my students were not very enthusiastic with their new lab groups but seemed to adjust well and quickly. Towards the end of the lab, they expressed their satisfaction with their new groups. In addition, my gifted students seemed excited to be able to teach their peers about the lab and felt a sense of accomplishment and responsibility."

Were these strategies manageable and sustainable? One teacher stated the strategies were manageable and sustainable but not every day. Four teachers reported they were, and responses ranged from “They are. It gives my GT students a role that utilizes their talents” to Yes. It helps me stay on task and the students engaged.” One teacher responded, "These strategies were surprisingly easy to implement. I found them helpful, and I also feel confident in using them again in my future lessons."

Will you continue to use these strategies in your classroom? All the teachers responded “Yes.” One teacher responded, "Yes, I will. I was pleasantly surprised with the outcome of implementing HOT questions and mixed-ability grouping in my classroom. My students and I were satisfied with the outcome, and I felt the strategies created a successful lesson for all of my students."

DISCUSSION

Summary of Purpose

The purpose of this study was to seek the perspective of teachers and GT students about what methodology is most successfully engaging in the classroom. The study was designed to create an instructional and curriculum model for classroom teachers to engage GT students without neglecting the needs of their peers. This research looked at two different perspectives, those of students and teachers, to determine what changes can be made in a general education classroom to engage GT students just as non-gifted and talented students are engaged. The teacher perspective was used to determine what current methods are being used to engage the above-average ability levels of GT students in their general education classroom. GT students often receive services outside of their regular classroom, meaning they are sometimes only engaged short bursts throughout the day.

The student survey was used to reveal the student side of learning. Mixed-ability students thrive in a variety of environments with different circumstances, making the student perspective crucial. The survey administered to students was the second source to create an integrated curriculum model that can easily be implemented into a general education high school classroom to engage all learners.

The curriculum model was created to allow teachers to build an enrichment plan that best meets the needs of their students. The curriculum model provides tips for teachers to consider and several suggestions to engage students. There are many opportunities for teachers to use their judgment and creativity. The pre-interview questions require teachers to reflect on their current engagement practices, and the post-interview questions allow teachers to see the increase in student engagement.

Limitations

If a wider scope of teachers and students were surveyed, survey results may have varied more. However, participants were limited to one school within Northwest Arkansas, so more students will have been in the same school district for most of their educational career. In addition, the teachers have taught in more districts, but not many teachers were surveyed.

Summary of Findings

The teacher survey revealed that GT students are typically not receiving specialized instruction outside of their GT programs. This means that a student could potentially go all but one hour of the day without engagement, which has serious repercussions on learning and retention. According to the teacher participants, a common concern with the currently existing method of providing GT services was that GT students who leave the classroom to leave services fall behind in their regular classes. Although the students need to receive services, it should not be at the cost of their education.

When it comes to classroom teaching, the majority of teachers said that it poses an issue to teach GT students among non-gifted and talented students because sometimes, GT students are not engaged in regular curriculum and are not concerned with their grades; without those motivations, there is little reason to do work. One teacher even shared that usually, general education classrooms teach to the average or potentially the least capable student. Students with special needs receive services, but GT students are another demographic that needs attention. Unfortunately, that is not always a priority.

The teachers shared their methods of differentiating instruction for GT and non-GT students in the survey. This revealed that most of the teachers cater to their GT student needs by using enrichment opportunities; specifically, teachers might challenge GT students to use more

creativity on an assignment or activity. Higher-level questioning was another method revealed in the study. Teachers were also asked how they gauge the engagement and retention of GT vs. non-GT students, which showed that teachers typically use the same methodology, along with their discretion and assessments, to determine how their learners are progressing.

GT students face two major obstacles: falling behind in class while receiving GT services and not being provided enough enrichment in the school day. One teacher disclosed that creating content to the middle makes going above for GT students more difficult. Another issue that a teacher mentioned was that sometimes GT students are afraid of being alienated by their peers regarding their higher abilities.

The GT students who took the survey said they are offered a wide range of activities in their GT program. Interactive activities and unique subject matter were most discussed, and experiments, group work, and abstract projects were also popular. To address the suspected stigma towards GT students, the survey inquired about students and their knowledge of the term "Gifted and Talented." While several students claimed they had merely heard the term used in passing or to call GT students out for their services, many students still shared their thoughts about how GT students are held to a higher standard than their peers.

Next in the student survey, all students were asked which activities they preferred the most. An overwhelming majority of students answered that they favored group projects. In second was individual projects, with written work in the third. The option "other" was provided for students that wanted to complete a short answer section, in which students shared that they also enjoyed interactive activities or projects, games, and experiments.

Engagement was then addressed. Just fewer than half of the students answered that they are bored in class often or more often than not. The frequently bored students shared what they

believe would make class more engaging; the most common answers were curriculum or course changes, interactive activities, group projects, more or better teacher involvement, and assignment changes. Some students either did not know what change should be made or disclosed that they did not like school at all.

The students were then provided the opportunity to share, in their own words, what they like most about learning in the classroom. Many students stated that they favored the social element of school (which is why they did not like virtual school) or had a vested interest in a specific subject. Additionally, student participants also reported that they liked when they were allowed to ask questions and have a deeper understanding of content, further proving the proposed need for a curriculum model for all learners.

In contrast, student participants were asked their least favorite part of the classroom. Several issues that were mentioned could be solved with an integrated curriculum model: boring or repetitive work, group pacing, lack of access to teacher help, specific instructional methods or activities, memorization over understanding, and not having enough time for assignments. Other students shared qualms with physical discomfort, disruptions and distractions, and specific content or subjects.

The researcher developed a curriculum model after analyzing the results of the data (see Appendix E). The curriculum model was designed with the intention of providing teachers with the opportunity to make selections specific to their students and classroom and give the researcher detailed feedback about the effectiveness of the curriculum model. The curriculum model includes:

- Key points to remember about GT learners
- Tips to engage all learners

- Suggested pacing for a 45-minute core class
- Questions to consider before implementing new strategies
- Questions to consider after implementing new strategies

The five teachers that used the curriculum model were located at one junior high school in northwest Arkansas. The teachers taught eighth and ninth-grade classes in subject areas of Science, Debate, Spanish, History, and Family and Consumer Science. The most used strategy within the curriculum model was HOT (Higher Order Thinking) questions. Teachers also used writing prompts, mixed-ability grouping, and pacing for a 45-minute class period. As a result, each of the teachers said that students were more engaged, particularly those they noted that were GT and finished their work before most of their peers.

The teachers who used the curriculum model each noted positive student engagement changes. These five teachers taught the following content areas: science, Spanish, debate, history, and culinary. Each used a different variety of engagement strategies. The most used was HOT Questions, but mixed-ability grouping, student choice, pacing, and knowledge extensions were also used. The teachers provided encouraging feedback and shared that they each a) noticed an increase in GT student engagement, b) had time to instruct other students independently while GT students remained engaged in the learning process, and c) will continue to use these strategies.

Recommendations for Future Research

Building upon the findings of this research, future studies should consider the school climate. Most importantly, questions like, "What do typical classes look like in this school?" and "What influence has the year's pandemic, economic, and social crises had on the school environment?" should be included in the survey.

In addition, designing the questions where the responses can be more simply translated into pieces of a curriculum model should be considered. For example, the questions were more about activities students participate in rather than specifically the ways taught. Having the latter written into the survey would have been very beneficial. Additionally, the researcher should consider asking about student demographics and track those trends for more in-depth knowledge of students.

One more change that the researcher should make is regarding the subject matter. The teachers were not requested to provide what subject they teach on the survey. Knowing the subject could have contributed to a more specific or even several curriculum models used at the same school. The researcher could also spend time researching and surveying to discover what implications this would have on a school-wide basis.

Conclusions

The purpose of this study was to seek the perspective of teachers and GT students about what methodology is most successfully engaging in the classroom. The study was designed to create an instructional and curriculum model for classroom teachers that engages students to combat the infrequent services they are provided outside the classroom. In addition, teachers and students were surveyed to determine what would strengthen an integrated curriculum model that could be implemented in a general education classroom. The results of the surveys lead the researcher to conclude that for all learners to be engaged in the classroom, it is important that curriculum is differentiated for students.

The curriculum model that the researcher created is manageable and sustainable in classrooms across several different subject areas. In addition, it allowed for an increase in student engagement and for the teacher to provide individualized instruction to specific students. As a

result, students were generally more enthusiastic about the learning process and collaborated more productively, improving the quality of the students' experiences in the classroom.

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Appendices

Appendix A (Institutional Review Board Approval)

UNIVERSITY OF ARKANSAS

To:	Betsy Orr
From:	Justin R Chimka, Chair IRB Expedited Review
Date:	09/07/2021
Action:	**Expedited Approval**
Action Date:	09/07/2021
Protocol #:	2106343092
Study Title:	An Integrated Curriculum Model for Gifted Learners
Expiration Date:	07/29/2022
Last Approval Date:	

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Emma Lauren Riemenschneider, Investigator

Appendix B (Informed Consent Letter)

INFORMED CONSENT

Title: An Integrated Curriculum Model for Gifted Learners

Researcher:

Emma Riemenschneider, Undergraduate Student
Betsy Orr, Faculty Advisor
University of Arkansas
College of Education and Health Professions
Department of Curriculum and Instruction
Peabody Hall, Room 216
Fayetteville, AR 72701
elriemen@uark.edu
borr@uark.edu

Administrator:

Ro Windwalker, Compliance Officer
Research Integrity & Compliance
University of Arkansas
109 MLKG Building
Fayetteville, AR 72701
(479) 575-2208
irb@uark.edu

Description: This study is an honors project designed to determine how to engage gifted students in a general education high school classroom. This study requires the student and teacher to respond to eleven questions about class activities that are the most engaging and any experiences with a gifted program. The survey will take approximately 10 minutes to complete. The survey consists of eleven questions for your child to respond. By signing below, you consent for your child to participate in the study.
Risks and Benefits: The benefits of this research include contributing to the knowledge base of an integrated curriculum model for gifted learners. Teachers will be able to use the information resulting from the study as a resource to implement in their classroom. There are no risks expected from participating in this study.
Voluntary Participation: This study will rely on your voluntary participation with no penalty for opting not to participate.
Confidentiality: The data will be collected through a secure website with the use of a survey. Personal information, including the name of the participant and specific survey answers, will not be used in any publications resulting from the research. All information will be kept confidential to the extent allowed by law and University policy.
Right to Withdraw: Your child is free to withdraw or decide not to participate at any time during the research process with absolutely no penalty.

Informed Consent: **To be completed by the parent/guardian:**

I, _____, have read the description of this study, including the
(Please print name)
purpose of the study, the procedures, risks and benefits, confidentiality statement, and the option to withdraw at any time, and I believe I understand what is involved. My signature below

indicates that I voluntarily agree to allow my child to participate in this research and have received a copy of this agreement from the researcher.

_____	_____
PRINTED NAME OF RESEARCH PARTICIPANT	SIGNATURE OF RESEARCH PARTICIPANT
_____	
DATE	
_____	_____
PRINTED NAME OF PARENT/GUARDIAN	SIGNATURE OF PARENT/GUARDIAN

Informed Consent: **To be completed by the student:**

I, _____, have discussed this study with my parent/guardian, and I agree to
(Please print name)
participate. I understand that even if I agree, it's okay if I choose not to participate or change my mind about participating later.

APPENDIX C (TEACHER SURVEY)

An Integrated Curriculum Model for Gifted Learners (Teacher Survey)

Emma Riemenschneider Honors Thesis Project

* Required

1. In what school district/s have you been a teacher? Please list. *

2. How many years have you taught? Please count this academic year (2021-2022). *

3. Did any of the districts provide Gifted and Talented services? *

   Mark only one oval.

   - ◯ Yes
   - ◯ No

4. If you answered "Yes" above, what were the Gifted and Talented services? Please list.

5. Do you feel that there are difficulties teaching Gifted and Talented students in a general classroom? *

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Maybe

6. If you answered "Yes" above, what are these difficulties? Please list.

_____

_____

_____

_____

_____

7. What is the biggest difference, in your opinion, between instruction to Gifted and Talented students and instruction to non-Gifted and Talented students? Please describe. *

_____

_____

_____

_____

_____

8. How do you gauge Gifted and Talented student engagement and retention, and is that different than how you approach that of non-Gifted and Talented students? Please describe. *

_____

_____

_____

_____

_____

9. Is there a specific issue that you think hinders the learning capabilities of Gifted and Talented students in a regular, public school classroom? Please describe. *

10. Is there anything else that you think I need to know about creating instructional methods for high school Gifted and Talented students? *

APPENDIX D (STUDENT SURVEY)

An Integrated Curriculum Model for Gifted Learners (Student Survey)

Emma Riemenschneider Honors Thesis Project

*

Did you or are you attending a Gifted and Talented program? *

- ◯ Yes
- ◯ No

If you answered "Yes" above, what types of activities are offered in your Gifted and Talented program?

Your answer

Have you ever heard the term "gifted and talented" used in one of your classes?

- ◯ Yes
- ◯ No

If you answered "Yes" above, describe this instance.

Your answer

What types of activities in your class are most engaging? *

- [ ] Group projects
- [ ] Individual projects
- [ ] Writing prompts
- [ ] Other

If you answered "Other," please explain here.

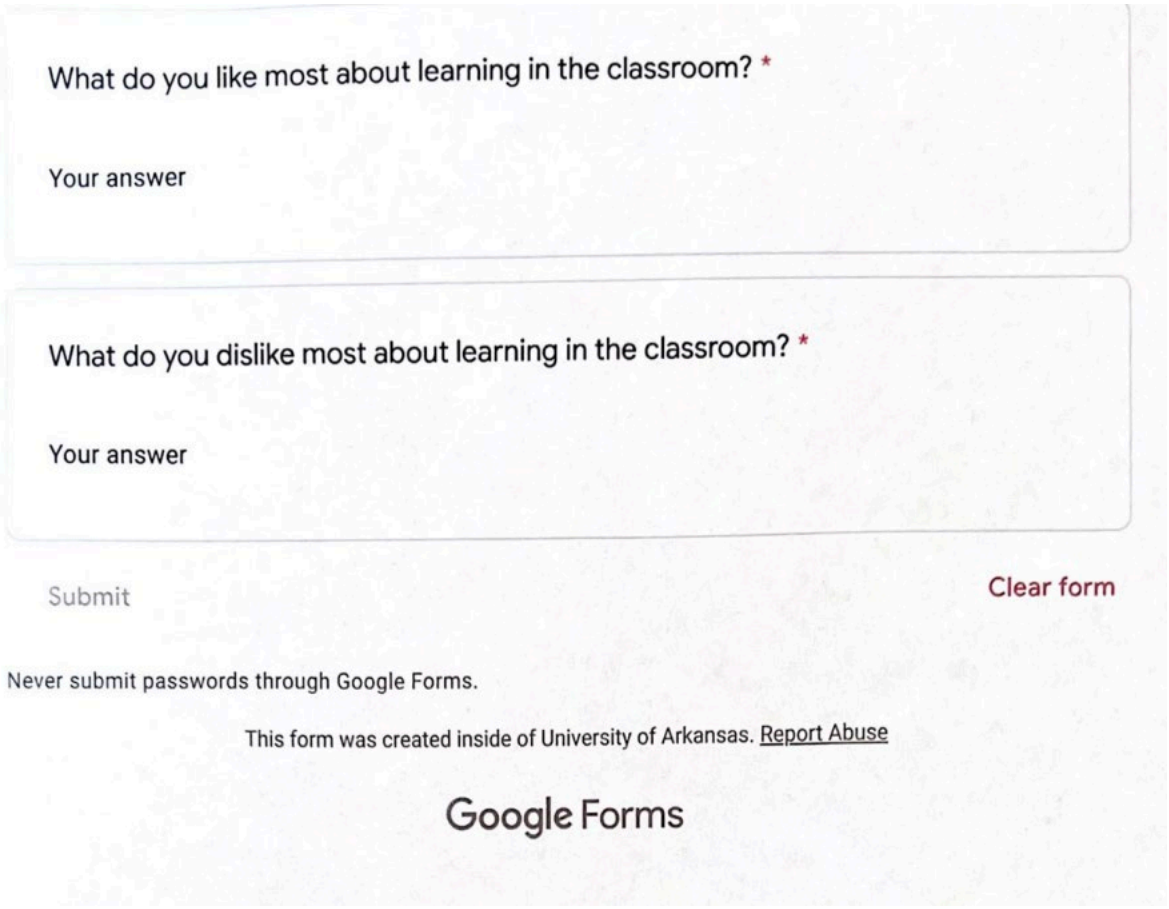
Your answer

Do you find yourself bored in class ? *

- ○ Often
- ○ More often than not
- ○ Seldom
- ○ Never

If you answered "Often" or "More often than not" above, what do you think would make you feel differently?

Your answer


What do you like most about learning in the classroom? *
Your answer
What do you dislike most about learning in the classroom? *
Your answer
Submit
Clear form
Never submit passwords through Google Forms.
This form was created inside of University of Arkansas. Report Abuse
Google Forms

APPENDIX E (CURRICULUM MODEL)

Developing a Curriculum Model for Differentiating Instruction for All Learners: Curriculum Model

Key Points to Remember About Gifted and Talented Learners:

- Gifted and talented (GT) students sometimes feel isolated from their peers, so explicitly directing them to different assignments can be embarrassing.

- GT students often finish work faster than their peers.

- Not all GT students receive services, and the services that these students receive is usually brief and infrequent.

Tips to Engage All Learners

- Higher ordered thinking (HOT) questions: These can be bigger picture or formulated to extending knowledge. Examples:
    - Within a math class: How can you use the formulas that we learned today in Chemistry?
    - Within an English class: What is this character's greatest weakness?
    - Within a History class: If you were a member of this King's staff, would you feel loyal to him?
    - Within a Science class: In what ways has technology influenced biological discoveries?

- Writing prompts: Any opportunity for students to create something individually is a) an effective formative assessment and b) a chance for GT students to be challenged.

- Choices: Allowing students the opportunity to make choices at various points in the learning process can be important to student success. If students are working individually and need to move to be more comfortable, maybe to another part of the classroom or in

the hall, allowing that can show students that you consider them to be responsible young adults. If you have a set of assignments that students are ready to complete, you can give them a "choice board" so they can work on whichever assignment they want to first. This choice can help satisfy students' need for control.

- Mixed-ability grouping: When it comes to grouping your students, sometimes you need to have more control than they do. Grouping GT students with students that typically struggle with content can bring up those students while allowing GT students to guide and teach their peers. This can enhance their learning more than working with students at their level.

- Knowledge extension: This is a continuation of learning for students that are finished early. This can be new or similar standards, an introduction to a topic that will be covered in the future, or anything that could further interest students that need an independent activity. This is perfect for GT students while the teacher provides individual instruction to other students. These assignments can be challenges within an assignment or a Google Classroom folder with additional assignments that students can access on their own.

- Feedback or instructional input: Students who are provided the opportunity to share their opinions and ideas will be more engaged in the learning. This could look like a Google Form with multiple choice or short answer for the student to provide feedback about class or specific lessons. If students are finished with their work, there could be a Google Spreadsheet available for them to write questions they want answered within content or activities they would like to try as a class.

- Notes: Rather than having students write all notes, consider having them fill in blanks with key words from the content source, or guided notes. Providing verbal and written information can cater to more students' needs and increase engagement. This could look like posting the notes source in Google Classroom and presenting in class.

- Differentiated instruction: Students enjoy having choice in their learning. This need can be satisfied by broadening assignments. For example, in a science class, students can show their knowledge of the water cycle by:
    - Illustrating the water cycle on poster paper,
    - Creating a brief video on PowToon, or
    - Writing a skit to be performed in a group

  These options allow for more creativity, a need that is often stifled in school.

- Pacing: Even within a 45-minute class period, students get bored of one activity that stretches the entire class time. Varying pacing can create a change in familiarity that is more exciting for students. Chunking is another pacing strategy to consider; this means having sections of different material or instructional strategies within the same class period to prevent fatigue.

Suggested Pacing, 45 Minute Core Class:

- Minutes 0 – 5: Brief introduction activity or thought-provoking question or image
- Minutes 5 – 15: Content explanation with teacher-lead examples and guided or modified notes
- Minutes 15 – 20: HOT questions or writing prompt
- Minutes 20 – 30: Content continuation or begin assignment or activity to reinforce learning (in groups or individually)
- Minutes 30 – 40: Assignment or activity to reinforce learning (in groups or individually)
- Minutes 40 – 45: Closure of content and brief formative assessment (Google Form, exit slip, etc.)

Questions to Consider Before Implementing New Strategies

- What students typically finish activities or assignments early, seem bored, or read or do work from other classes?

- Which students are typically more independent in your class and require little individual guidance?

- How have you measured student engagement previously?

- Which of the above strategies could make the majority of your students most successful?

Questions to Consider After Implementing New Strategies

- Were your GT students more engaged or for a longer period of time?
- Did these strategies allow you to provide individual instruction to students that needed it while other students continued working?
- Did these strategies allow for your students to express their creativity?
- Did your students seem generally more pleased with the learning environment because of these strategies?
- Were these strategies manageable and sustainable?
- Will you continue to use these strategies in your classroom?