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## Differentiated Instruction: One School's Survey Analysis

Dianne James

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### ABSTRACT

The purposes of this study are to investigate teachers' perceptions of differentiated instruction and its implementation in day-to-day teaching within the classroom. A small sample of thirty-seven middle school teachers participated in this study. Thirty-three of them completed a fifty-item survey and four participated in a semi-structured individual interview. The findings support the premise that teachers know what differentiated instruction is theoretically or conceptually, but may not be implementing the corresponding strategies in their classrooms. One important implication of this study is that future staff development should continue to reinforce the necessity of differentiated instruction, correct the various misconceptions about differentiated instruction, and provide adequate training for the actual implementation of differentiated instruction.

### INTRODUCTION

Differentiated instruction is widely known as a method of teaching that meets the diverse needs of students. However, little information is available concerning the actual execution of differentiated instruction in the classroom by teachers. Many educators pay lip service to the idea of meeting the needs of all students and teaching them in ways that best enable them to learn; however, in reality, the majority of teachers still teach in the same way by aiming down the middle (Irujo, 2004).

This study is designed to investigate teachers' perceptions of differentiated instruction and how the concept of differentiated instruction is translated into day-to-day teaching within the classrooms. Questions that the study seeks to address are:

- What are teachers' views about differentiated instruction?
- Can teachers make distinctions between individualized instruction and differentiated instruction?
- Are teachers differentiating instruction or are they "teaching to the middle"?

An assumption of this research is that the teachers surveyed have a basic understanding of differentiated instruction because in the past two years differentiated instruction was a topic for staff development at the school in which this study occurred.

## LITERATURE REVIEW

As Tomlinson (2001) describes, "In a differentiated classroom, the teacher proactively plans and carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest, and learning needs" (p. 7). It is a technique and response to help students learn instead of tedious and repetitive teaching. Differentiation starts with the teacher's mindset that a student of any age needs active involvement with and support from adults who care to help them construct a worthy life (Tomlinson, 2001). This method of teaching does not suggest that a teacher has to be all things to all individuals all the time (Tomlinson, 2005). However, it does require a teacher to master a reasonable range of approaches to teaching so most students find mastery of learning as often as possible. A teacher's response to varied readiness levels relates to a teacher's professionalism. An expert teacher is attentive to varied learning needs and grows into a competent, creative, and professional educator (Tomlinson, 2000). Educators who are responsive to the increasing diversity among the student population in today's classrooms believe that "classes should include students of diverse needs, achievement levels, interests, and learning styles, and instruction should be differentiated to take advantage of the diversity, not ignore it" (Jackson & Davis, 2000, p. 23).

There are many challenges for implementing differentiated instruction in today's classrooms. A teacher who differentiates his or her instruction faces the challenge to provide learning environments and opportunities that exclude no child (Anderson, 2007). When nontraditional students are also included in a school's most rigorous classes (VanSciver, 2005), the implementation of differentiated instruction becomes even more challenging. Moreover, not only do teachers answer to parents, but they also answer to lawmakers and the business community who demand results with unsupportive admonitions (VanSciver, 2005), thus putting added pressures on the teaching profession. These various challenges limit teachers' abilities to achieve teaching effectiveness in a classroom where differentiation becomes the center of the instruction. Therefore, while teachers indicate the belief that differentiation would benefit student learning, "research suggests the infeasibility argument is winning in teachers' struggles of conscience" (Tomlinson, 2002, p. 8). Tomlinson also states:

While most teachers persist with single-size approaches to instructing diverse students populations, both research and everyday observation provide ample evidence that many students are ill-served in such classrooms. We are repeatedly disappointed by test scores indicating a shortfall in student achievement. More disappointing is the number of students from varied economic and cultural backgrounds and achievement levels who become disenchanted with learning because school has failed to connect with them as individual learners (p. 9). Consistent with Tomlinson's argument, it is often observed that the typical pupil sits through notes and lectures, completes worksheets, and then takes a test over the memorized materials. The classrooms were quiet except for the instructor's lecturing. The teachers chose content, duration of study, and accessibility for student learning. It was an effort to ensure that all children receive an equivalent level of education (Levy, 2008). This is how most teachers are educated themselves; however, this is not differentiation.

Teachers hold various misconceptions about differentiated instruction. Tomlinson (2001) emphasized that differentiated instruction is not individualized instruction, chaotic instruction, homogeneous grouping, or tailored instruction. In addition, teachers can be skeptical of differentiated instruction believing that if differentiated instruction is used, students will be ill prepared for standardized tests, students will assign unfair workloads among themselves, or even students may eventually fail to survive in the real world. Moreover, some teachers believe that credits should not be given for learning if a student has not demonstrated the same knowledge level as the other students in the same class and that there is only one approach to differentiating instruction (Rock, Gregg, Ellis, & Gable as cited in Wormeli, 2005).

Finally, other misconceptions about differentiated instruction include that differentiation is an approach only for students with disabilities, to tack on adaptations to pre-developed lessons, to change pieces of the lesson for one or two students, or another disconnected model for teachers to implement and fit into the school day (Kluth, 2000). These misconceptions impede teachers from effectively implementing differentiated instruction and must be corrected in order to facilitate teachers' transitions from the more familiar one-size-fits-all teaching to differentiated instruction. Teachers need to be warned of the possible negative consequences of adhering to the ineffective one-size-fits-all teaching that can result in boredom for some students and failure for others. Teaching to the middle means that the needs of a growing number of students will not be met (Rock, et al., 2008). With the implementation of the No Child Left Behind Act, failure is not an option and teachers can no longer aim down the middle and teach content in only one way. Educators must to be proactive and creative in their teaching styles.

As defined by Tomlinson (2001), a differentiated classroom is marked by a repeated rhythm of whole-class preparation, review, and sharing, followed by opportunity for individual or small-group exploration, sense-making, extension, and production. It is essential to realize that successful learning involves the use of strategies which themselves are learned, and individuals learn best when the content is meaningful to them. From years of experience, most teachers make modification in small but significant ways throughout the school day. The challenge for teachers is to embrace the concept on a scale and scope to positively enhance student achievement (Tomlinson, 2001). Baglieri and Knopf (2004) stated, "Differentiated instruction drives the spirit of the classroom and school community toward critical reflection and disrupts the inequalities currently prevalent in our schools and our society" (p. 528). Studies indicate the need for differentiated instruction to enhance student learning and to close the achievement gaps, but it is not easy for teachers to change from classroom procedures that are comfortable and familiar to them. The projected outcomes of this study are that teachers teach to the middle and provide individualized instruction instead of using differentiated instruction. The theory of differentiated instruction is known at a more superficial level, but the depth of the philosophy is not practiced.

## **METHOLODGY**

### **Participants**

The targeted participants for this study were fifty-seven certified teachers for the 2007-2008 school year at Bonaire Middle School. Of the fifty-seven teachers, thirty-seven filled out the survey sent to them via e-mail. Four of the returned surveys were not usable because of significant missing responses to multiple items. In addition, two returned surveys contained missing responses on one of the items. Simple mean imputation procedures were applied to the missing items on these two surveys. A total of thirty-three teachers' surveys were entered for further analysis. Teachers with varying certification levels and years of experience participated in the survey. This included certified academic, non-academic, and special education teachers. The same teachers of varying experience levels were selected for the interviews. As Figure 1 in Appendix C shows, eight of the participants have a bachelor's teaching degree, twenty-one of the participants have a master's degree, and eight of the participants have a specialist's degree. I obtained a 66% response rate overall, however, I can only use 59% of my colleagues' responses for statistical analysis.

Bonaire Middle School is located in Bonaire, which is on the urban fringe of Warner Robins, Georgia, a medium-sized city. The total student population for Bonaire Middle School is 848 students based on the statistical information

from the Georgia's Department of Education (2007). Of the 848 students, 66.3% are white, 27.1% are black, 2.5% are multi-racial, 2.0% are Hispanic, 2.0% are American Indian, and 1.9% are Asian/Pacific Islanders (Figure 2). Public School Reports (2007) reveals that 238 students are eligible for free lunches and seventy students are eligible for reduced-priced lunches, hence 36.3% of the student population are eligible for free and reduced-priced lunches.

### Research Design

Both quantitative and qualitative data were collected in this study in order to obtain a more complete picture of teachers' views about differentiated instruction and the implementation of this method in their classrooms. I emailed a closed-ended survey written on a Likert scale to a small sample of fifty-seven middle school teachers via the website [surveymonkey.com](http://surveymonkey.com) (Appendix A). The respondents completed the survey anonymously without providing written explanations, and tracking of responses were automatic with the Survey Monkey program.

In addition, four pre-selected semistructured, retrospective personal interviews with open-ended questions were conducted, and I recorded the answers to the questions. The questions were primarily opinion-, sensory-, and knowledge-based. I scheduled appointments with four teachers for the interviews and asked all of them the same set of questions (Appendix B). Both quantitative and qualitative data were collected in order to triangulate findings from different research methods (Fraenkel & Wallen, 2006).

The survey instrument was multi-faceted. As stated above, teachers were asked to complete an anonymous survey written on a Likert scale. The survey was used to seek opinions concerning differentiated instruction and the implementation of this teaching method within the classrooms. Questions were divided into six categories: demographics, lesson design and implementation, content, procedures, communication, and learning.

### Validity and Reliability of the Instrument

Since factor analysis was prohibited by the small sample size, item analysis was chosen as the most appropriate approach to validating the instrument. The original instrument contained fifty-six items with five of these items requesting demographic information about the teachers. The last item of the survey was an open-ended question soliciting additional comments from respondents. A copy of the survey in Appendix A shows that the remaining fifty items were written on Likert scales with choice options ranging from rarely occurs, sometimes occurs, often occurs, and very frequently occurs. The fifty items were subjected to item analysis to examine score reliability. Item retention and deletion decisions were guided by two criteria. First, items with

negative discrimination coefficients (negative item-total correlation) were deleted from further analysis. Second, items with excessively low discrimination coefficients (item-total correlation  $< 0.15$ ) were also deleted.

The Lesson Design and Implementation Scale retained nine of ten original items (omitting statement thirteen due to a lack of clarity), and the scores maintained adequate internal consistency as measured by Cronbach's  $\alpha = 0.71$ . The Content Scale retained all ten original items and yielded an acceptable Cronbach's  $\alpha = 0.76$ . The Procedure Scale and the Learning Scale were more problematic and generated questionable, but not totally unacceptable reliability scores at 0.67 and 0.63 respectively. The Procedure Scale retained all of its original twelve items, and the Learning Scale retained all of its original nine items based on the above-mentioned decision rules. Finally, the Communication Scale retained all of its original eight items, but yielded a low reliability as measured by Cronbach's  $\alpha = 0.48$ . This scale was deleted (omitting statements thirty-five through forty-five) from further analysis because of its low internal consistency.

### Data Analysis

SPSS, a statistics software package, was used to analyze the numerical data obtained from the survey. Qualitative data from the interviews were compiled to look for common patterns and themes. The interview questions and surveys were analyzed individually, and if applicable, were compared against each other to find commonalities or discrepancies.

## RESULTS

### Survey Results

The years of teaching experience were correlated with the following aspects of differentiated instruction: Lesson Design and Implementation, Content, Procedure, and Learning. No statistically significant correlation was found between years of teaching experience and any of the other variables, although more experienced teachers tend to use the strategies listed in the Content ( $r = 0.11$ , ns) and Procedure ( $r = 0.13$ , ns) scales slightly more frequently. On the other hand, less experienced teachers tend to use the strategies listed in the Lesson Design and Implementation ( $r = 0.14$ , ns) and Learning ( $r = 0.07$ , ns) scales slightly more frequently. Descriptive statistics of the study variables for academic content-area teachers, special education/collaboration teachers, and connection (elective) teachers are presented separately as illustrated below in Table 1.

The descriptive statistics show teachers reported frequent use of all the strategies listed in the Lesson Design and Implementation, Content, and

Learning Scales. The average scores for all three types of teachers were higher than the midpoint of the respective scales. The least frequently used strategies, as reported by all three types of teachers, were those associated with the Procedure Scale.

Multivariate Analysis of Variance (MANOVA) was performed to investigate whether there were statistically significant differences among these three types of teachers in their use of differentiated strategies. MANOVA result indicates these three groups of teachers were not significantly different from each other in their levels of usage of the differentiated strategies included in the survey ( $\lambda = 0.77$ ,  $F = 0.73$ ,  $df = (4, 28)$ ,  $p = 0.691$ ). Four univariate analyses of variance were also performed, and their results were consistent with that of the multivariate analysis of variance. These findings (as illustrated in Table 1), however, were interpreted with extreme caution because they are based on a very small sample as illustrated in Figure 3 in Appendix C. In addition, six of the thirty-three teachers were connection teachers, and three of the survey participants were special education/collaboration teachers. The homogeneity of variance assumption was not violated in this case according to the Box's test ( $F = 0.74$ ,  $df = (15, 320)$ ,  $p = 0.747$ ), even though the number of teachers in each group was significantly different from each other.

With further investigation, three specific statements were analyzed individually from the survey. These statements target common misconceptions teachers may have about differentiated instruction (Tomlinson, 2001). Table 2 (see Appendix and Figures) represents a cumulative frequency distribution of the responses to the statement "I individualize instruction as much as possible," found in the Content area of the survey (Appendix A). The frequency of individualizing instruction for teachers who participated in the survey was at a 97% occurrence. One teacher rarely individualizes instruction.

The second statement, "Instruction is individualized" (Table 3), is also located in the Content area of the survey (Appendix A), and is similar to the previous statement, but asked in a different manner. Although the distributions of answers were different, the results were similar. One teacher rarely individualizes instruction, while thirty-two teachers report this as occurring sometimes, often, or very frequently.

The third statement, "I 'teach to the middle' to reach the majority of students" was also evaluated (Table 4). This statement is located in the Procedures area of the survey (Appendix A). Five teachers, or 15%, reported teaching to the middle rarely occurs while twenty-eight teachers or 85% showed teaching to the middle sometimes occurs, often occurs, or very frequently occurs.

In addition, I compared two statements from the survey that depict differentiated instruction, and two statements that do not use descriptive



statistics. The statements that represent differentiated instruction were "Teaching practices match the needs of the student" and "I use cooperative learning." The two statements that do not represent differentiated instruction were "I 'teach to the middle' to reach the majority of the students" and "Instruction is individualized." The mean scores reveal a lower average for teaching to the middle, 2.21, and individualized instruction, 2.55. The score variability for these items as measured by the standard deviations was at  $\sigma = 0.74$  and  $\sigma = 0.75$  respectively. The two statements that reflect differentiated instruction received higher average scores of 3.00 and 2.94 respectively with similar standard deviations (Table 5).

### Interview Results

A qualitative approach was taken to analyze the interview data in order to gain insights into teacher perceptions about differentiated instruction. The individualized participant responses demonstrated that each participant held a uniform perspective about the importance of differentiated instruction. Although there were several apparent trends among the participants, two distinct differences pertaining to participant responses became evident at the completion of the interviews.

The first difference is how the participants defined differentiated instruction. Two of the four participants defined differentiated instruction as each child having an individual learning style or learning differently. The other two participants interviewed defined differentiated instruction as different teaching strategies or using instruction to meet the needs of a variety of students. On the survey, open-ended comments revealed six of the seven respondents believed every teacher should use differentiated instruction because of children's differences. The surveys did not mention differentiated instruction meaning students learn differently. The six respondents stated that differentiated instruction meant a teacher was addressing student differences.

The second difference was how the participants determined how well students learned in their classroom and how they reached a conclusion about the children's learning. Two of the four interviewees stated that children learn well in their classrooms and they knew this because of the scores from the Georgia Criterion Reference Competency Tests (CRCT), grades from daily class assignments, and low retention rates. These two teachers used concrete measurements to determine learning in their classrooms. On the other hand, one participant answered that she knew children learned well in her classroom because she had good relationships with them and they tell her or show her when she asks. She offered no examples of how she did this in her classroom. The fourth participant stated that learning in her classroom was "up and down" based on the emotional states and academic weaknesses of the students.

These latter two participants made no mention of concrete measurements to determine learning.

## DISCUSSION

The results of the data were anticipated. Teachers appear to have the same knowledge about differentiated instruction and share frequent uses of all the strategies listed in Lesson Design and Implementation, Content, and Learning Scales (Table 1). Excluding connection (elective) teachers, academic content-area and special education teachers use the Procedure Scale strategies frequently (Table 1). This conclusion is supported with the MANOVA analysis that also indicated the three groups of teachers were not significantly different from each other in their levels of usage of the differentiated strategies ( $\lambda = 0.77$ ,  $F = 0.73$ ,  $df = (4, 28)$ ,  $p = 0.691$ ). Since there was a disparity of the number of teachers among the three groups, a Box test was performed. The homogeneity of variance assumption was not violated ( $F = 0.74$ ,  $df = (15, 320)$ ,  $p = 0.747$ ). With the survey statement posed to the thirty-seven middle school teachers, I did not find any significant differences or correlation between any groups or across any variables. In the interviews, I asked the teachers if differentiated instruction was a fad and all four participants stated emphatically, "No." As stated by Rock et al. (2008), "Differentiating instruction is not a passing fad: it is a revolution – a fundamentally different way to teach students with diverse learning and behavioral needs" (p. 39). The participants who answered the questionnaires also emphasized the need for different methods that were needed for optimum learning, giving students the best opportunity for success.

Two statements (twenty and twenty-five) from the survey (Appendix A) were highlighted during data analysis, both concerning teachers' perceptions about individualized versus differentiated instruction, in order to address the second research question. Of the thirty-three surveys analyzed, 97% of the teachers marked that they sometimes, often, or very frequently use individualized instruction. Tomlinson (2001) argues that differentiated instruction is not individualized instruction. If a classroom of twenty-five students has twenty-five different assignments, the teacher would be exhausted (Tomlinson, 2001). The purpose is to maximize the capabilities of the students, not exhaust the teachers. As Anderson states,

It integrates what we know about constructivist learning theory, learning styles, and brain development with empirical research on influencing factors of learner readiness, interest, and intelligence preferences toward student motivation, engagement, and academic growth within schools (as cited in Tomlinson & Allan, 2000).

Different lessons do not mean individualized lessons in a classroom.

Statement thirty-seven was particularly examined to address the third research question, i.e., whether teachers are teaching to the middle or differentiating instruction. When evaluating the responses to this statement, I found that 85% of the teachers sometimes, often, or very frequently teach to the middle. This one-size-fits-all approach to teaching increases students' frustration about learning, thus contributing to low test scores (Rock, et al., 2008; Tomlinson, 2001). This method of teaching is not differentiated instruction. Differentiation is responsive teaching rather than one-size-fits-all teaching (Tomlinson, 1999).

In comparison, I also carefully examined the statement addressing the opposite from teaching to the middle, i.e., teaching practices that match the needs of the students. The teaching to the middle statement described earlier had a mean score of 2.21, which is lower than the mean score of 3.00 for the item indicating just the opposite. Similarly, the statement opposite of individualized instruction, which is using cooperative learning, was also selected for further analysis. The mean scores were 2.55 for individualized instruction and 2.94 for cooperative learning (Table 5). This shows that the teachers surveyed match their teaching with the needs of the students more than teaching to the middle and use cooperative learning more than individualized instruction, showing their preferences for differentiated instruction in their responses (Levy, 2008).

In the open-ended comment section of the survey, one respondent discussed that she is a hands-on teacher, with projects and activities occurring daily in her classroom. Many of her classes are chaotic, but she feels the students achieve a lot of work. It is interesting to note that she commented that it only works "if I don't get too controlling...trying to keep everyone on the same page." Differentiated instruction is not keeping "everyone on the same page." Instead, it is meeting students where they are when they come into the classroom (Levy, 2008; Tomlinson, 2001). Another participant responded, "Each child is different, and they need to know that they are special and you are concerned about their individual needs." The educational philosophy in a differentiated classroom emphasizes that cultivation of teacher-student relationships is essential as well as letting each student's voice heard and valued (Baglieri & Knopf, 2004).

Unfortunately, there were limitations to this study. The data may not transfer to schools in different socio-economic areas. The middle school used for this study is predominately white as illustrated in Figure 2. The survey does not represent the entire teacher population at the middle school (Figure 3), with only thirty-three of the fifty-seven teachers participating. The survey would have been more effective if it had been pre-tested on a small sample

of teachers to clarify certain statements or change the wording. Possibly this pre-test would have prevented the deletion of the Communication statements on the survey. The survey took less than ten minutes to complete, which the participants appreciated, but the lack of two-way communication may have prevented accurate ratings by the participants. Since the survey was transmitted electronically, fewer teachers may have completed it that would otherwise have filled it out if the paper were lying on their desks as a reminder. Only one out of five teachers asked would not participate in the interview session due to time constraints. Another drawback to this mixed-methods study was the time and energy necessary for completion; thus, classroom observation data that can be crucial for examining the actual implementation of differentiated instruction are not available.

### Implications of the Study

The implications of the study are multi-faceted. It is apparent that teachers know the philosophy of differentiated instruction, but may not be consistently implementing the strategies in their classrooms. Too narrow an approach will fail students and teachers because it “confuses technical adequacy with artistry” and “confuses compliance with thoughtful engagement” (Rock et al., as cited in Tomlinson 2000, p. 11). There is no doubt that research supports the use of differentiated instruction (Rock, et al., 2008), but I am not confident teachers actually implement the strategies of differentiated instruction. The middle school administrators, who had a part in deciding the specific areas to investigate in this study, share this view. As stated by Anderson (2007), teachers need to investigate applications of differentiation “toward instructional planning and implementation of lessons through action research projects, professional conference presentations, and other projects” (p. 52).

An aspect of differentiated instruction needing further research is that of teachers allowing students to have a voice that is heard and valued in their educational process (Baglieri & Knopf, 2004). There were statements to be rated about student voice, but as the Communication section on the survey had very low reliability, it was eliminated from any form of analysis. Teachers need to realize differentiated instruction is a shared responsibility for both the teachers and the students. As Tomlinson (2004) states,

I believe the richest and most responsive classrooms are those in which responsibility for developing both the individual and the group is a shared endeavor. Thus differentiation is neither a thing the teacher does nor a way the child functions in order to improve his or her state of affairs. It is a learned way of thinking about “being” that honors and contributes to the uniqueness and the possibilities of each person in the group, as it honors and contributes to the success of the whole. (p. 189) The findings support the premise that teachers

share adequate knowledge about differentiated instruction, but the area of implementation needs further investigation.

The results of this study will be shared with the administration at the middle school so future staff development topics of study will continue to reinforce the necessity of differentiated instruction and the implementation of the philosophy in the classroom. An area of specific interest is the misconceptions about differentiated instruction. Although the results will be used with caution because of the small sample size in this study, it is my hope that more guidance and training will be available to correct ill-conceived ideas and enhance classroom performance for our students and teachers.

**APPENDIX AND FIGURES**

Table 1

*Means and Standard Deviations for Study Variable by Types of Teachers*

	<i>n</i>	<i>M</i>	<i>SD</i>
<i>Lesson Design and Implementation</i>			
<i>(score range: 9-36, 9 items)</i>			
Academic Content-Area	24	29.17	3.28
Connection	6	30.50	3.89
Special Education/Collaboration	3	32.33	3.51
<i>Content</i>			
<i>(score range: 10-40, 10 items)</i>			
Academic Content-Area	24	32.33	3.10
Connection	6	34.45	2.65
Special Education/Collaboration	3	35.67	5.13
<i>Procedure</i>			
<i>(score range: 12-48, 12 items)</i>			
Academic Content-Area	24	28.67	4.23
Connection	6	26.84	7.63
Special Education/Collaboration	3	29.67	3.06
<i>Learning</i>			
<i>(score range: 9-36, 9 items)</i>			
Academic Content-Area	24	29.92	3.40
Connection	6	31.67	2.73
Special Education/Collaboration	3	34.00	3.61

Table 2: Frequency Distribution of Survey Statement 20 (n = 33)

	f	%	Cumulative %
Rarely Occurs	1	3	3
Sometimes Occurs	11	33	36
Often Occurs	15	46	82
Very Frequently Occurs	6	18	100

Table 3: Frequency Distribution of Survey Statement 25 (n = 33)

	f	%	Cumulative %
Rarely Occurs	1	3	3
Sometimes Occurs	17	52	55
Often Occurs	11	33	88
Very Frequently Occurs	4	12	100

Table 4: Frequency Distribution of Survey Statement 37 (n = 33)

	f	%	Cumulative %
Rarely Occurs	5	15	15
Sometimes Occurs	17	52	37
Often Occurs	10	30	97
Very Frequently Occurs	1	3	100

Table 5: Descriptive Statistics of Teachers' View of Differentiated Instruction (n = 33)

	M	SD
Teaching practices match the needs of the student.	3.00	0.71
I "teach to the middle" to reach the majority of students.	2.21	0.74
I use cooperative learning.	2.94	.079
Instruction is individualized.	2.55	0.75



## Appendix A: Differentiated Instruction Questionnaire

### Differentiated Instruction Survey

Thank you for completing this questionnaire. The responses are anonymous. The results will be compiled in a research paper to fulfill requirements to complete my six-year degree in education. Your assistance in this endeavor is greatly appreciated. Thank you.

### Demographics

1. Select the choice that best describes you:  
Male or Female
2. Select your current certification level:  
Education degree (T4), Masters degree (T5), Specialists (T6),  
Doctorate in Education, Leadership, or TAP
3. Teaching experience in years:  
less than 1 year, 1-5, 6-10, 11-15, 16-20, 21-25, 26+ years
4. Grade(s) currently teaching: (mark all that apply)  
6, 7, 8
5. Content(s) you are currently teaching: (mark all that apply)  
Math/MAE/AC, Language Arts/Spanish/Honors, PE, Chorus,  
Band, Computers/Technology, Science/Honors, Social Studies,  
FACS/AG, Special Education, or Collaboration Class

### Lesson Design and Implementation

Directions: The following are statements about differentiated instruction. Please indicate to which each state statement characterizes your teaching philosophy by marking the appropriate response.

6. The instructional strategies and activities respect students' prior knowledge and the preconceptions inherent therein.  
Rarely Occurs   Sometimes Occurs   Often Occurs   Very Frequently Occurs
7. The lesson was designed to engage students as member of a learning community.  
Rarely Occurs   Sometimes Occurs   Often Occurs   Very Frequently Occurs
8. Your lessons encourage student to seek and value alternative modes of investigation or problem solving.  
Rarely Occurs   Sometimes Occurs   Often Occurs   Very Frequently Occurs
9. The focus and direction of the lesson are often determined by ideas originating with students.  
Rarely Occurs   Sometimes Occurs   Often Occurs   Very Frequently Occurs

10. Assessment and instruction are inseparable.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

11. The best way to assess knowledge is by paper and pencil tests.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

12. Learning activities are varied.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

13. Student achievement data and student work samples are analyzed to make instructional decisions.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

14. I use multisensory teaching approaches.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

15. Curriculum is developmentally appropriate and sequential.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

## Content

16. The lesson involves fundamental concepts of the subject.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

17. I anticipate problems that might arise when teaching the curriculum.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

18. The lessons promote coherent conceptual understanding.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

19. I have a solid grasp of the subject matter content inherent in the lessons.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

20. I individualize instruction as much as possible.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

21. I am comfortable with the content that I teach.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

22. I connect learning to the various academic disciplines through integrated curriculum.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

23. Instructional strategies focus on meaning.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

24. I expect students to take ownership of their learning.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

25. Instruction is individualized.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

## Procedures

26. I know my students learning profiles.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
27. I display student work.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
28. I know students are engaged when the classroom is quiet.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
29. I use power point presentations for student notes.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
30. I use activity sheets.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
31. I use cooperative learning.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
32. Special education teachers' expertise are incorporated into interdisciplinary units.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
33. Peer tutoring is used.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
34. My teaching practices match the needs of the students.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
35. I lecture as students take notes.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
36. I assign student worksheets.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
37. I "teach to the middle" to reach the majority of the students.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

## Communication

38. I question students to trigger divergent modes of thinking.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
39. The majority of discussion in my classroom is among the students.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
40. Student questions and comments often determine the focus and direction of classroom discourse.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
41. I have high expectations for ALL students.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs
42. I expect students to respect each other and their opinions.  
Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

43. I believe in excellence and equity for my students.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

44. I use small groups for instruction.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

45. I believe students should have a voice in my classroom.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

## Learning

46. I am aware of developmental needs of middle school students.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

47. All students have the opportunity to succeed in my classroom.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

48. Tutoring is used to reach struggling students.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

49. I pre-assess regularly to know what students already know.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

50. Students with disabilities should be included in regular education classrooms.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

51. I like an organized, but chaotic classroom environment.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

52. I teach to the CRCT.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

53. I value what my student's believe about learning.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

54. The metaphor "teacher as listener" describes me.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

55. I act as a resource person, working to support and enhance student investigations.

Rarely Occurs Sometimes Occurs Often Occurs Very Frequently Occurs

Appendix B: Interview Questions

- 1. What specific aspects of your teaching please you the most?
- 2. How well do students learn in your classroom? How do you know
- 3. How is learning the same or different for each student?
- 4. What does differentiated instruction mean to you?
- 5. Do you feel that differentiated instruction is another fad?
- 6. Other Notes:

Figure 1: The certification levels for teachers at Bonaire Middle School from The State of Georgia (2007).

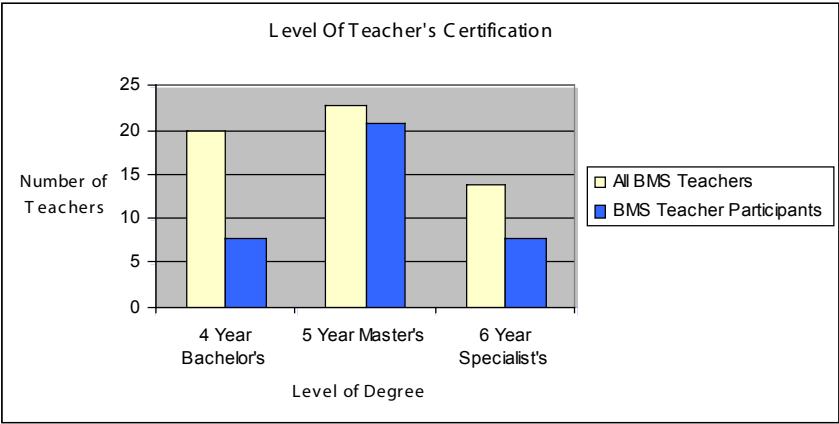


Figure 2: Demographics of Bonaire Middle School Student Body 2007-2008.

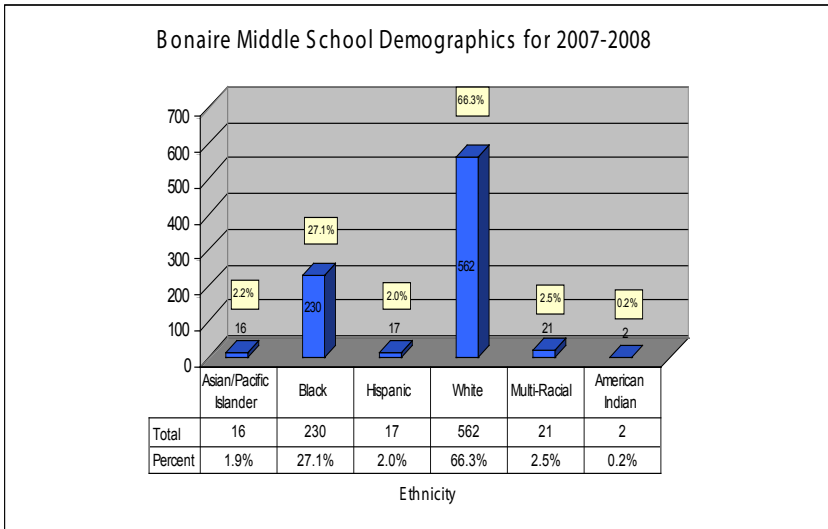
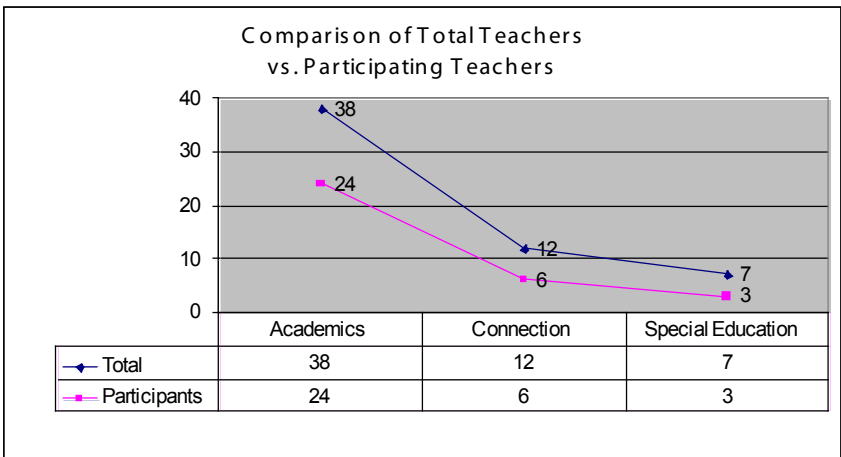


Figure 3: Relationship between total number of teachers at BMS and teachers who participated by their content area of teaching.



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