



**Peer Teaching and Reading Comprehension:
Analyzing the Effects of Whole-Group and Jigsaw Peer Teaching on Informal
and Teacher-Generated Assessments**

BY

Daniel M. Barnes

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Peer Teaching and Reading Comprehension: Analyzing the Effects of Whole-Group and Jigsaw Peer Teaching on Informal and Teacher-Generated Assessments

By Daniel Barnes
High School English Teacher
Grades 9-12
E.T. Beddingfield High School
Wilson, NC 27893

Introduction

The 2010-2011 school year is my third year teaching English, all at Edgar.T. Beddingfield High School (Beddingfield) in Wilson, North Carolina. These three years have featured numerous innovations, many of which are due to our (former) status in the North Carolina Turnaround Schools Program. Beddingfield has received on-site professional development, technological upgrades, and a data-driven focus to improve its academic standing. However, this is all top-down improvements; I hope to use this project to inspire peer teaching from the bottom-up.

Beddingfield is located between two rural townships and the downtown region of Wilson, North Carolina, which creates an extremely diverse school culture. According to greatschools.org, over sixty percent (60 %) of students are on free and reduced lunch. Black students constitute sixty-three percent (63 %) of the study body, white students compose twenty-eight percent (28 %) of the population, and Hispanic students are eight percent (8 %) of Beddingfield's population.

Currently, Beddingfield's reputation has been on the rise, since the school has moved out of turnaround status this year due to rapid academic improvements. In the past four years, the school's End-of-Course test scores have jumped from approximately fifty percent (50 %) proficiency to over eighty percent (80 %) proficiency. While those statistics are astounding, we as a school still have students to reach. Peer teaching could help our school build on our strengths and could help any student build reading comprehension, which is still a focus of our school improvement plan.

The class I chose for this project is a new course, SAT PREP, which I started teaching this year to help our school's performance on the SAT. This course does not have a state End-of-Course test, but all students in this class will take the SAT, so I have standards and objectives to accomplish yet the flexibility to experiment with peer teaching. I have twenty-three (23) students in the eleventh and twelfth grades, five (5) of whom are eleventh graders and eighteen (18) of whom are twelfth graders. The academic levels vary greatly in this course. Students range from International Baccalaureate-level to low standard, pre-calculus to geometry, Advanced Placement English to standard-level.

Because of the varying ability levels, peer teaching provides all students the ability to learn from each other, teach each other, and develop mini-expertises. Whole-group peer teaching relies on the psychology of peer encouragement (or pressure) to ensure that everybody in the group understands content, since the group is only as good as its weakest link. Jigsaw peer teaching depends on more classroom management techniques, since the students can "teach" smaller class sizes, thereby simulating and creating a small-group and individualized educational experience. Each strategy has its benefits, but I hypothesized that jigsaw, small-group peer teaching would elicit the most successful results in the area of reading comprehension.

Experiment: Establishing the Lesson

For this experiment, students used sample passages from the SAT that were found from College Foundation of North Carolina (CFNC) and sparknotes.com. These passages were non-fiction excerpts that included science, history, and humanities. The class was divided into six groups. Four were directed by me to employ whole-group teaching methods, and two were directed to use a jigsaw method that involved small-group teaching.

To complete this project, students had to complete an array of activities. The specific directions are attached in the appendix; however, the general concept required the students to: A) read the text together and generate a consensus for a main idea; B) master the assigned text as demonstrated via one hundred percent accuracy on the attached SAT multiple-choice questions; C) generate additional multiple-choice questions as directed by the Standard Course of Study and SAT objectives; D) create an activity beyond a simple worksheet with a rubric and grading criteria; E) construct a writing task with a rubric that assesses content and grammar.

Students had two ninety minute periods to read the assigned texts, master the objective assessment, and create a mini lesson plan that covered how they would provide instruction (i.e., how to review the reading with the class, how to question the class, how to highlight vocabulary, how to discern the main idea and supporting details, etc.). Then, students had four seventy-five minute sessions to script a lesson, create multiple-choice questions, and generate written tasks and a summative activity. As students worked, I rotated around the room and answered student questions and monitored student progress. An important aspect to note is that I did not conduct a pre-experiment lesson on *how* to teach; therefore, the ingenuity and creativity of the teaching and preparation methods are extremely salient elements of this project. While I provided feedback to student inquiries and monitored progress, students were reminded of their need to work expeditiously and efficiently because of an online timer. For organization purposes, students had color-coded folders and note cards that indicated which students were in which group.

Experiment: Implementing the Lesson

For the sake of organization, the six groups (A through F) are labeled as: BLUE (A), YELLOW (B), GREEN (C), WHITE (D), RED (E), and BLACK (F), respectively, so as not to confuse groups with letter grades or numbers.

Results

The Blue, Yellow, Green, and White groups all created mini-units focusing on whole-group instruction. They designed lessons by reading and mastering their assigned stories, creating vocabulary lists, lecture/guided notes, a whole-class group activity, and a short-answer writing task. They developed objectives based on what skills are covered primarily on the SAT and they used their tasks to align with these objectives. The Red and Black groups were directed to collaborate to make mini-units with the same objectives, but they created small groups to teach in ratios of 1:4.

Concerning the subjective short-answer sections, the data is primarily qualitative, but trends were easy to discern from the student interviews and from observations. When students were instructed to devise writing tasks, the questions ranged from opinion-based pieces (from the Humanities article taught by group 1: “In your opinion, is objectivity ever completely possible? Explain why or why not, and reference the arguments based in the story) to imaginative pieces that blended creativity and synthesis (from the group 6 article: “Summarize and analyze a potential conversation between the author of passage 1 and the author of passage 2 on the topic

of modern or contemporary art. Use the articles and information in the passages to assume the attitudes and language used in the conversation”). While the questions themselves were well-developed and representative of critical thought, the answers were brief and lacking in critical thought. For the first sample question identified above, a common answer was: “Objectivity is not possible because people see from separate perspectives, and some people may believe science or religion but not the other.” For the second question, most students answered in a way that resembles this most concise version: “The authors would both agree that it is very important to stay true to how history has created the art, and they would both hate altering art and the lack of accuracy in depicting characters.” It is important to note that the writing tasks created by the peer teachers far surpassed the objectives covered in the lesson. Each group was expected to understand *their own story* to this level of comprehension, but each group was also expected to focus on primary SAT-esque *reading* objectives. In essence, the development of the questions reveals more about the reading comprehension of the peer teachers than the answering of the questions reveals about those learning from the peer teachers.

Comparatively, students wrote much less than would be expected if I taught the units. This was true for both the whole-group and small-group teachers. Quantitatively, students who wrote for the small-groups scored approximately 3 points higher than those who wrote for the whole-groups. These scores were derived from a multi-trait writing rubric of 100 points that were evaluated for grammar, usage, mechanics, spelling, logical answers, textual evidence, and supporting details.

The bulk of the data, though, consists of student performance on the multiple-choice objective section. At the conclusion of the unit, all students took a summative multiple-choice assessment in which they were given fresh copies of the stories in order to answer the questions. Obviously, students should (and did) answer the questions correctly *from their own story*. Therefore, for the purposes of this research, student scores from their own story have been tossed out. The results from the study are below:

Data Table A

Group	Max. grp. score*	Actual group score**	Percent
Blue (whole-group)	90	78	86.67%
Yellow (whole-group)	90	75	83.33%
Green (whole-group)	85	66	77.65%
White (did not teach)	90	64	71.11%
Red (jigsaw/small group)	80	66	82.50%
Black (jigsaw/small group)	160	138	86.25%

* Max. grp. score = number of questions in story taught by each group multiplied by number of test-takers. This is the maximum possible group score.

**Actual group score = Total Correct Answers, the total number of correct answers (i.e., 14 answered number 1 correctly, plus 15 answered number 2 correctly, etc.)

Note: These scores are indicative of how well the class did on the questions taught by the groups above.

Group Blue taught questions 1-5 to 18 students. The rest of the class scored 86.67.

Group Yellow taught questions 6-10 to 18 students. The rest of the class scored 83.33.

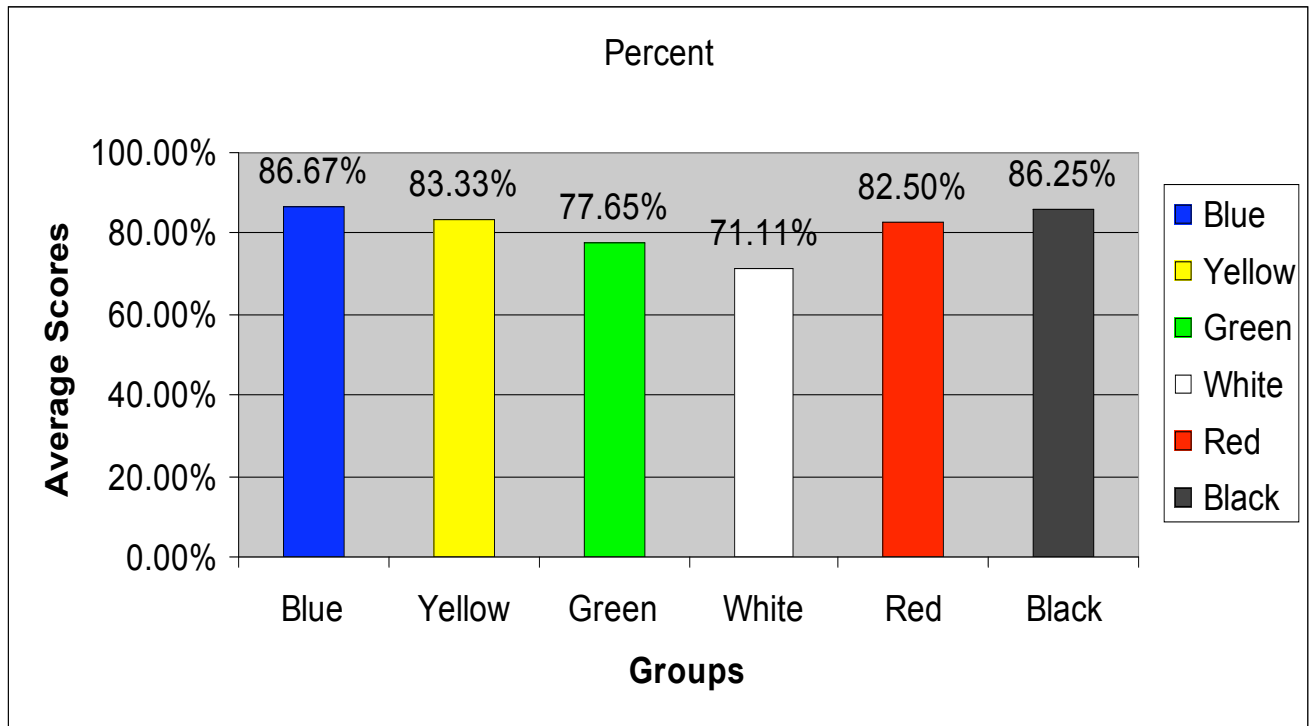
Group Green taught questions 11-15 to 17 students. The rest of the class scored 77.65.

Group White refused to teach. The rest of the class read the story "dry" and scored 71.11.

Group Red taught questions 21-25. The rest of the class scored 82.50.

Group Black taught questions 26-35. The rest of the class scored 86.25.

Data Table B



Analysis of Results

A few items must be considered before analyzing results: 1) students chose their own groups, with the only limitation being that I mandated the size of each group due to passage length; 2) a couple of students were absent; 3) the “White” group refused to teach, but they completed the other tasks; 4) Blue, Yellow, and Green taught via whole-group, White refused to teach, and Red and Black taught via small ratios (or small groups).

From a raw data perspective, the students answering the questions from the story taught by the Blue teaching group performed the best, followed by Black, Yellow, Red, Green, and White. This indicates that the small-group teaching performed second and fourth best, while the whole-group performed first, third, and fifth. While it is tempting to consider only empirical data, the analysis would not be complete without student demographic information, teacher observation, and student reflection.

As a mere comparison, the data do not show a large difference in performance between groups who taught to the whole class versus those who had smaller ratios. The discrepancy in the charts above are more adequately explained and analyzed by observation and student reflection than by simple quantitative data. Four of the groups (two whole-group teachers and both small-group teachers) all performed within five percentage points of each other, so no clear trends are available pertaining to whole-group versus small-group. However, the two weaker performing groups were a whole-group and a non-participating group, and these situations will be described in greater detail.

The Blue Group consisted of three peer teachers, and they used whole-group methodology. They had the highest test scores, with an 86.67 percent clip. While this trio did use a lecture-based, whole-group style, they used teaching techniques emulated from master teachers. For example, this group used a class roster to choose students at random to participate, and they ensured that everybody was engaged and ready to participate. Furthermore, this group circulated the room and created numerous “centers of focus,” which forced the students to track the teacher and pay attention more actively. Lastly, and unpredictably, this group used “wait-time” quite well in that they did not simply “give away” an answer if a student was not sure; instead, these peer teachers gave clues and made sure that other students did not shout the answer. I cannot emphasize enough that this group was not explicitly taught teaching skills, but they utilized these elements of quality classroom management very efficiently. In addition to fulfilling all of the requirements I established, they planned their discussion and practiced reviewing the text *with each other*. This group made every student participate in some manner, whether by reading or answering questions. From the teacher perspective, this group emulated teaching skills the best, and their scores reflect a well-done job.

The Black Group provided some of the most useful qualitative information. This group used small-group methodology, and they practiced their teaching practices with each other. They had the second highest test scores, with an 86.25 percent record. Furthermore, this group consisted of five of the top seven students in the class; ergo, they could not take their own test, which likely indicates that their scores are largely deflated since they were teaching and assessing only the bottom 70% of the class. Another interesting fact is that this group’s individual testing results corresponded quite accurately with how well the other groups taught. Student 1 taught the Blue Group (the group with the highest overall score), and student 1’s group did the best (100%) on the assessment. Student 2 taught the White Group (the group that refused to teach), and student 2’s group performed the worst (70%). Student 3 taught the Green Group (the group with the lowest score among the groups that taught), and student 3’s group performed at only an 80% standard.

The Yellow Group utilized a whole-group teaching style, and they performed at an 83% range. They strongly emphasized main idea and vocabulary over teaching style, but their diligence proved to be effective. In fact, this group likely *could* have done the best due to their willingness to work together, share responsibility, and perform exceptionally in school, but all of the members of this group were extremely shy and reserved, and their ability to manage the class was the weakest—I mainly handled that. Each member of the Yellow Group epitomizes the reticent yet academically-excellent high school student.

The Red Group, also a small-group teaching group, provided interesting, nuanced data. Their members consisted of three top-level, honors students and two weaker pupils. As a whole, they performed at an 82.50 % standard. However, the students working with the three “A-students” performed at over a 93% rate on the assessment, while the students working with the two weaker students performed at a 75 % standard. The Red Group practiced teaching skills with each other and they managed the classroom adequately, but it was quite obvious that the three stronger students tried to teach teaching skills (such as asking guiding questions after each paragraph or section, choosing sections to highlight to enforce key points, and comparing concepts in the passage to ideas more relatable to students) to the weaker students while the weaker students tried to remember the information to convey to their assigned learners.

The Green Group taught to the whole class and they performed below standard. This group consisted of four students, two of whom are the weakest in the class, and two of whom are

B to C-level students. They were not forced to work together, but they chose to be in the group together. This group needed frequent guidance and direction from me, and their primary objective was completing the tasks I assigned, not practicing or planning to teach.

The White Group completed the tasks but would not present to the group. This was not expected until the very last minute, as they did not indicate any reluctance to teach. In individual conferences, the students in this group explained that they had never completed any type of assignment in which they presented to a whole class before. There are additional underlying reasons that may be relevant as to why this group did not present. As a piece of background information, these three students all transferred to Beddingfield from a preparatory school for NCAA Division I basketball recruits, and they were reluctant from the outset to participate in any school-related functions or requirements. Furthermore, these students only needed to improve their SAT scores to meet NCAA Clearinghouse standards (which they already had done by the completion of this project) and pass a World Civilization course to receive their high school diplomas. These pieces of information reveal a probable lack of motivation on the White Group's part, since they do not need to do this to graduate or go to college.

Since the White Group would not teach their passage, the rest of the class was given their information and had to take their assessment after simply reading their information without any guidance. Unsurprisingly, students performed the worst on the multiple-choice questions from the White Group's story.

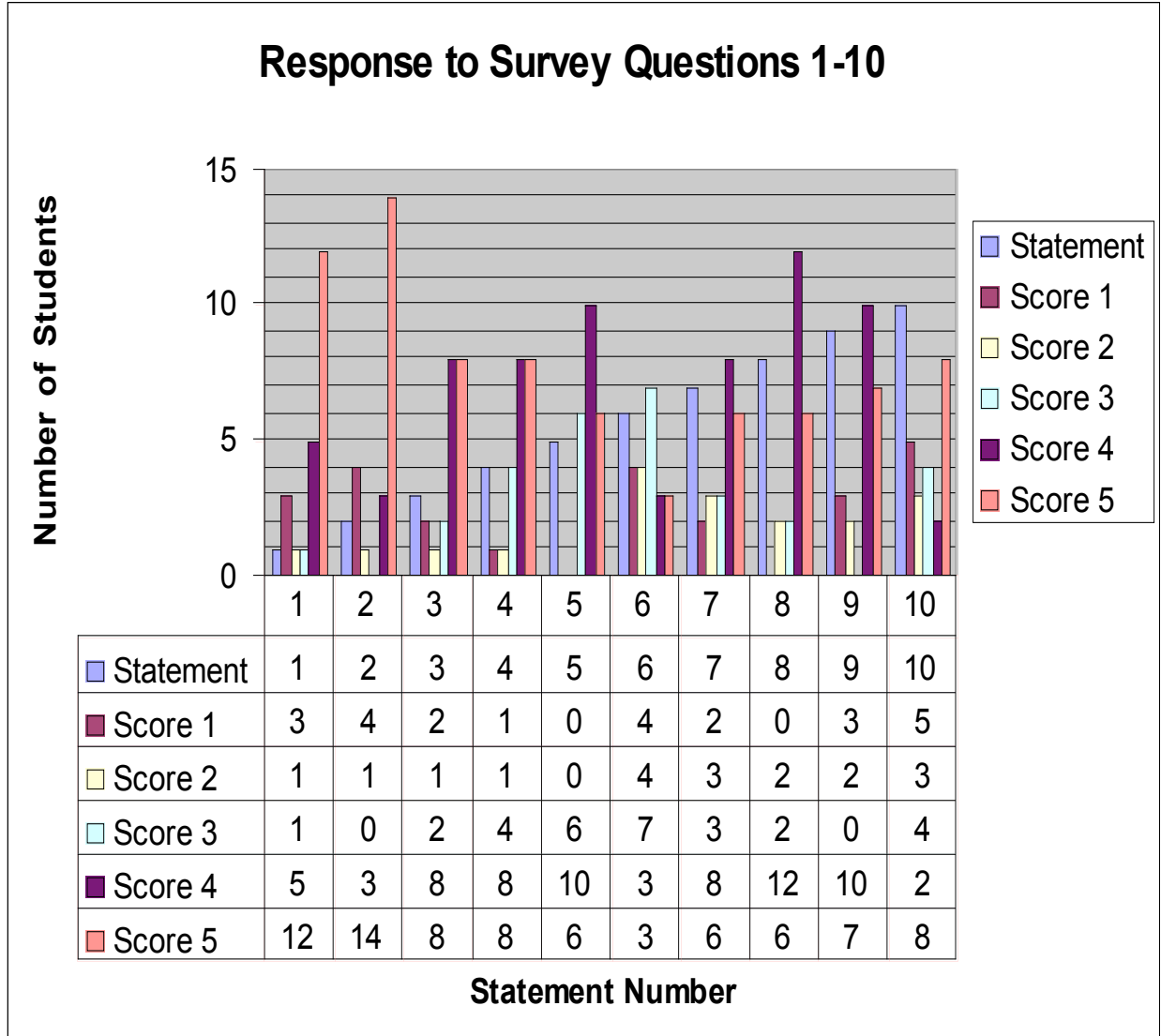
Student Reflections

As a whole, the students enjoyed this activity. Out of 22 in the class, 17 preferred doing this method of reading rather than "regular class activities." The 5 who did not enjoy the activity were the three in the White Group who refused to teach and 2 of the weaker students from the Green Group. These students all reported that they "strongly agreed" that they understood material better once they taught it themselves and that they "strongly agreed" that they enjoyed learning from each other.

Overwhelmingly, students thought that having to read, master, and teach the material was more challenging than just learning the material. Students "agreed" that my tasks were difficult but attainable, and they agreed that the project was difficult enough to be challenging but not too difficult.

Students also clearly agreed that my clear expectations as the teacher-facilitator and the rubrics that they created were absolutely necessary to make this experience possible and effective. In essence, the students stated that since this project had clear objectives and was within reach, it was useful and effective as a way to teach reading comprehension. The following charts represent the tally from the appendix document *Survey for Peer Teaching Unit*.

Data Table C



NOTES

Score 1 = Strongly Disagree; **Score 2** = Disagree; **Score 3** = Neutral; **Score 4** = Agree; **Score 5** = Strongly Agree

Statement 1: Completing this activity was easy.

Statement 2: Completing this activity was more fun than normal class activities.

Statement 3: Completing this activity helped me better understand the story I was teaching.

Statement 4: While completing this activity, my group worked equally.

Statement 5: While completing this activity, I was able to start discussion and answer questions from my group members with confidence.

Statement 6: While completing this activity, I was able to start discussion and answer questions from students NOT IN MY GROUP with confidence.

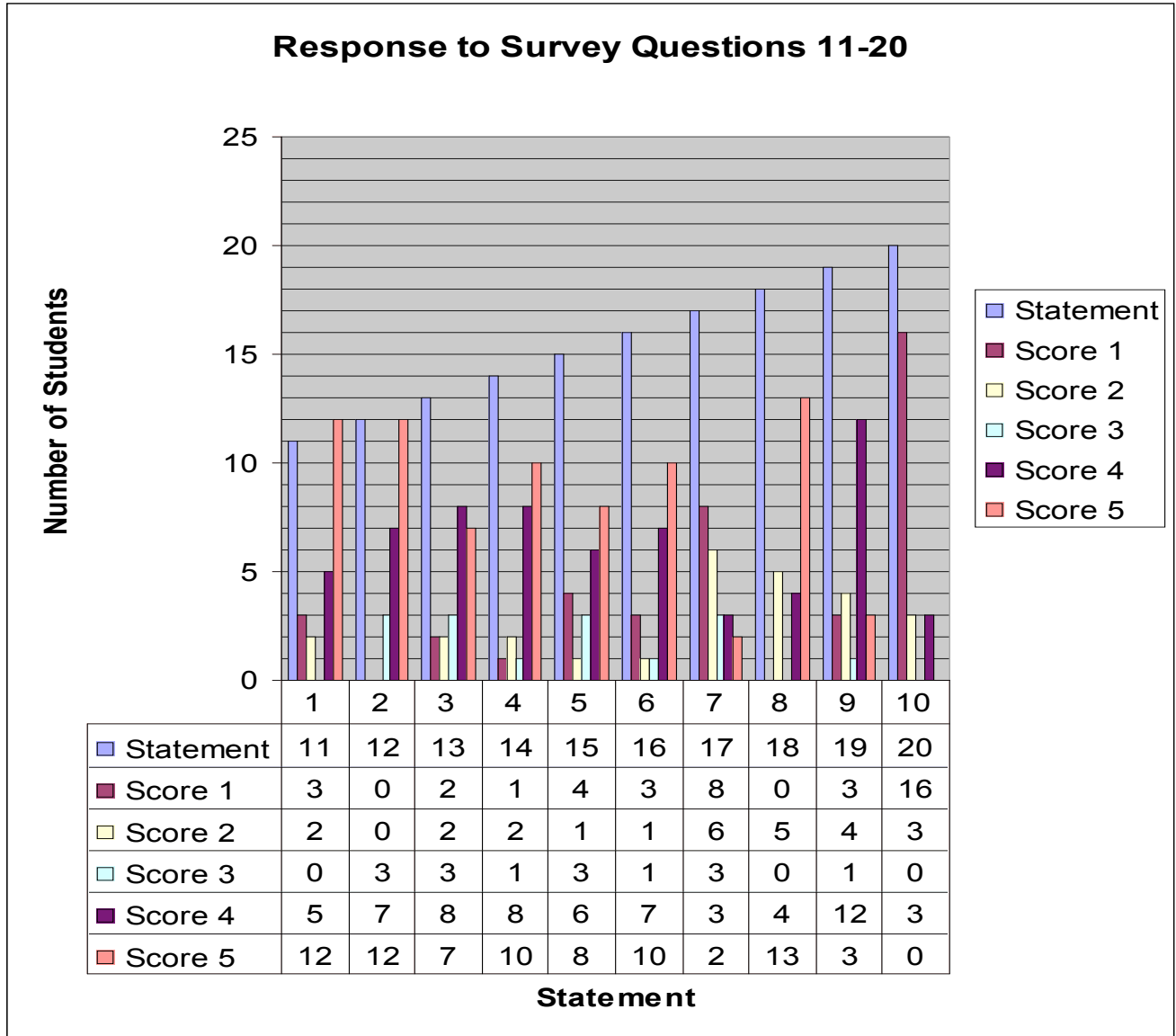
Statement 7: While completing this activity, I felt more comfortable asking for assistance from my group members than I would about asking for assistance from my teacher.

Statement 8: While completing this activity, I used my time wisely.

Statement 9: While completing this activity, I felt I learned more than I would if we did this activity as a whole-class.

Statement 10: While completing this activity, I felt that I taught effectively.

Data Table D



NOTES

Score 1 = Strongly Disagree; **Score 2** = Disagree; **Score 3** = Neutral; **Score 4** = Agree; **Score 5** = Strongly Agree

***The Blue “Statement Bars” are present only to indicate Statements 11-20. I separated Statements 1-10 and 11-20 into separate charts.

Statement 11: Learning from the other groups was more fun than normal class activities.

Statement 12: I learned more from the groups that broke us up into small groups.

Statement 13: The groups that taught me seemed to share the work evenly.

Statement 14: The groups that taught me were able to answer my questions and/or the questions of my peers efficiently.

Statement 15: I felt comfortable asking questions to the groups that taught me.

Statement 16: I felt more comfortable asking questions when I was taught by one peer than I did asking questions to the whole group.

Statement 17: I felt more comfortable asking questions to my peers than I did asking questions to my teacher.

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Statement 18: I paid complete attention to my peers while they were teaching.

Statement 19: I feel comfortable taking a test on the material my peers taught me.

Statement 20: I feel more comfortable taking a test on the material my peers taught me than I would taking a test my teacher taught me.

Teacher Observations and Reflections

Numerous factors make determining “small group vs. whole group” outright evaluations impossible without further studies. However, a combination of quantitative data and instructor observations does shed light into the topic. First, one of the key indicators to the performance of a teaching group is the academic profile of the teachers. The teaching groups with the two highest averages in the class also produced the two highest averages in scores derived from the summative assessment. This is compounded by the fact that the scores are deflated since the data is skewed more towards the weaker students in the class (since the strongest students in the class did not receive scores for taking their own tests that they taught). The groups taught by the weaker students tended to perform significantly worse as a whole, as exemplified by the sub-group within the Red Group and the entire performance of the Green Group.

Another indicator is the quality of instruction and ability to teach. Individuals and groups that emphasized *teaching* over paperwork or memory performed substantially better, which indicates that peers certainly can teach each other and should be given additional well-structured opportunities to teach, which in turn will make them better instructors and thereby better learners and students.

The last factor is student behavior, motivation, and attitude. Quite fittingly, the better behaved and more motivated students were in the groups with the highest performance. This class exemplified the cliché, “Birds of a feather flock together,” because the higher performers chose to work with each other, the average students partnered with each other, and the more apathetic/lethargic individuals stuck together.

This peer-teaching experiment revealed important information about effective strategies in peer teaching. First, the key indicator about how well peer-teaching works is the ability and/or willingness of the student to master and provide quality instruction. The chart data corresponds almost perfectly with the ability levels and attention to detail provided by the peer teachers. The only area in which the data is slightly skewed here is when the strongest performers’ scores are impaired by the fact that strongest students (themselves) cannot take the assessment! Therefore, the scores reported in this project write-up did not represent the whole class.

Secondly, prior coaching on classroom management and effective teaching skills are necessary to teach students *how* to teach. The best performers in teaching (individually, in small groups, and in whole groups) were the ones who made sure each student was called upon and each student was participating. When the lesson was simply “stand and deliver,” the students who were supposed to be learning became passive, unengaged individuals who statistically performed worse than they did under the more effective peer teachers. The highest performing group of all used whole-group methodology, but they insisted on participation from everybody. On the other hand, the weakest group was also a whole-group user, but they read and delivered information. The jigsaw/small groups performed in the 80s and their performance varied according to each individual in the small group.

Lastly, this project supports the importance of modeling effective teaching strategies and employing the Zone of Proximal Development. More research and data are necessary to specify the effectiveness of specific approaches, but this project does support the relevance of what is generally considered effective teaching strategies. When students consistently see and experience quality teaching (the use of effective classroom management, providing opportunities to participate, allowing students to see meaning in tasks, etc.), those students can then employ those skills to be expert peer teachers. Furthermore, students perform and live up to expectations

when presented with a manageable challenge as exemplified by the Zone of Proximal Development.

What I Would Have Done Differently

While this project was useful in providing relevant information, there are a few ways I would modify this experiment for future research. First, I would spend 1-2 days teaching my students how to teach, and I would introduce ideas about how to call on students, ask questions, wait for answers, and move around the classroom. Secondly, I would assign groups rather than let the students choose their own groups; this is not because I am for or against students choosing their own groups, but because I would like to compare the data between the methods. Lastly, I would allow each group to decide whether to use whole-group or modified-jigsaw instruction, rather than micromanage everything myself.

Areas for Further Study

One important aspect of this research is that the information only applies to the SAT Preparation class in this study. This group is rather atypical in that it is not separated by academic strength (i.e., standard vs. honors vs. Advanced Placement/International Baccalaureate). Instead, this class is a blend of pre-International Baccalaureate, honors, standard, and remedial students. Therefore, this project cannot be used to generalize the typical advanced, honors, standard, or remedial level class. Furthermore, since this was only a single-shot study, I cannot confirm or deny that the results are absolutely replicable each time. However, the findings of this study suggest that more research is necessary to analyze the effectiveness of whole group and modified-jigsaw peer teaching.

Although this project was in the field of English Language Arts within an SAT Preparation class, elements of this research deserve more in-depth analysis and evaluation. Further questions left to study include: 1) What preparatory steps can peer teachers be led to take to improve peer student outcomes and build peer teacher confidence? 2) What type of impact does prior academic success have on how well a student could perform as a peer-teacher? 3) What are the impacts of student ratio during peer-teaching?

Appendix

On the following pages are items used to conduct this project. These include the actual stories and the surveys provided to the students.

Group 1: [Student names omitted for privacy/anonymity]

This is a Humanities reading passage.

The believer perceives herself to be in an entirely unique position. She senses, or even knows, that there are aspects of her religious life which cannot be apprehended by the social sciences. Where does the anthropologist account for the believer's soul? How does the historian deal with God's determination of events in the believer's community? Can the sociologist explain why congregants flock to their place of worship?

We suspect that the believer does not stand alone in her questioning of the adequacy of the social scientific method as a mode of exposition. In other fields, we find glimmers of similar doubt, parallels to the believer's concern that the social scientific approach to her religion will overlook its essence. The geographer uses the tools of the social sciences in his investigation of a city. He may act as economist, ethnographer, demographer, historian, urban planner, and archivist in his endeavor to comprehend the city in its fullness. And yet the citizen who examines his findings may well charge that he has not accounted for the pulse of the city. Likewise, even after his biography, education, medical background have been considered, even after the depths of his dreams and his chemical make-up have been plumbed, the client may still doubt that his psychologist has elucidated his self. In each of these cases, the object of the study perceives a limitation to the method by which the area in which he or she has a vested interest is explored. The common understanding of the believer, the citizen and the client -- who are all, as the objects of these studies, personally vested in their respective results -- is that the whole is greater than the sum of its parts. So the common question they raise is: Can the social sciences ever account for the whole? Or are they destined to remain confined to a consideration of the parts?

When the social sciences model themselves too closely on the natural sciences, when they quantify, reify, dissect and inspect, they will be unable to account for the essence of human experience. There are two reasons for this incapacity. First, utter objectivity about the human enterprise is an impossibility. This objection is connected to one occasionally leveled against the natural sciences, and the social ones as well: that objectivity period is impossible. Every act of inclusion comprises one of exclusion; every theory pursued marks an election against pursuing another. Further, the scientist, because she is human, cannot help but bring some subjective element of her own personal, cultural or social world to her ostensibly objective investigation. So we must keep in mind always the inherent impossibility of objectivity.

More than this, however, we must be mindful of another aspect of the peculiar relation of objectivity and human experience. Wilhelm Dilthey, a philosopher of experience, explains that "experience here is not of phenomena of objects, like desks or chairs; it is the existence of human subjects within a temporal order that cannot itself be objectified the way objective data can, because one can never stand outside of temporality and watch it go by." The natural sciences advocate a view from nowhere, an utter objectivity whereby the scientist strives to divorce herself entirely from her world as she investigates her subject. The social scientist, however, is always viewing his subject from somewhere, whether from a historical moment, a spatial location, or an ideological stance. As a human being, he can never truly step back from human experience in order to evaluate it. The second reason that a social science model based in the natural sciences will not fully apprehend the whole of human experience is that the natural sciences are not concerned with meaning. A social scientific approach modeled too closely on the natural sciences runs the risk of posing a partial set of questions. The full scope of human experience cannot be grasped by simply asking who, what, where, when and how. Issues of meaning, experience, essence can only be arrived at when we ask Why. The theologian or religionist would argue that only from the believer's perspective can the question of why be honestly posed and properly answered.

Group 1 Questions

1. The author employs all of the following techniques EXCEPT:
A. a hyperbole B. a rhetorical question C. an analogy D. a generalization
2. The primary topic of the passage is which of the following?
A. The clash between subjective experience and objective data
B. The impossibility of accounting for human experience objectively
C. The mutual exclusivity of faith and science
D. The danger of objectifying religious conviction
3. Who, according to the author of this passage, is most qualified to explicate the religious life?
A. the theologian B. the religionist C. the believer D. the philosopher
4. Dilthey's argument, as expressed in the quotation above, can best be summarized as follows:
A. Experience cannot be measured in the same ways that material objects can.
B. Time itself cannot be quantified because we exist in it.
C. As humans we experience more than simply the material world around us.
D. As humans we can never step outside our time-bound existence in order to observe ourselves objectively.
5. The author's attitude toward the social sciences as a tool for investigation is best described as:
A. outright condescension B. righteously indignant C. morally opposed D. fundamentally skeptical

Group 2: [Student names omitted for privacy/anonymity]

The following passage is from the first chapter of a 1922 book on birth control.

This book aims to be neither the first word on the tangled problems of human society to-day, nor the last. My aim has been to emphasize, by the use of concrete and challenging examples and neglected facts, the need of a new approach to individual and social problems. Its central challenge is that civilization, in any true sense of the word, is based upon the control and guidance of the great natural instinct of Sex. Mastery of this force is possible only through the instrument of Birth Control.

It may be objected that in the following pages I have rushed in where academic scholars have feared to tread, and that as an active propagandist I am lacking in the scholarship and documentary preparation to undertake such a stupendous task. My only defense is that, from my point of view at least, too many are already studying and investigating social problems from without, with a sort of Olympian detachment. And on the other hand, too few of those who are engaged in this endless war for human betterment have found the time to give to the world those truths not always hidden but practically unquarried, which may be secured only after years of active service.

Of late, we have been treated to accounts written by well-meaning ladies and gentlemen who have assumed clever disguises and have gone out to work--for a week or a month--among the proletariat. But can we thus learn anything new of the fundamental problems of working men, working women, working children? Something, perhaps, but not those great central problems of Hunger and Sex. We have been told that only those who themselves have suffered the pangs of starvation can truly understand Hunger. You might come into the closest contact with a starving man; yet, if you were yourself well-fed, no amount of sympathy could give you actual insight into the psychology of his suffering. This suggests an objective and a subjective approach to all social problems. Whatever the weakness of the subjective (or, if you prefer, the feminine) approach, it has at least the virtue that its conclusions are tested by experience. Observation of facts about you, intimate subjective reaction to such facts, generate in your mind certain fundamental convictions,--truths you can ignore no more than you can ignore such truths as come as the fruit of bitter but valuable personal experience.

Regarding myself, I may say that my experience in the course of the past twelve or fifteen years has been of a type to force upon me certain convictions that demand expression. For years I had believed that the solution of all our troubles was to be found in well-defined programs of political and legislative action. At first, I concentrated my whole attention upon these, only to discover that politicians and law-makers are just as confused and as much at a loss in solving fundamental problems as anyone else. And I am speaking here not so much of the corrupt and ignorant politician as of those idealists and reformers who think that by the ballot society may be led to an earthly paradise. They may honestly desire and intend to do great things. They may positively glow--before election--with enthusiasm at the prospect they imagine political victory may open to them. Time after time, I was struck by the change in their attitude after the briefest enjoyment of this illusory power. Men are elected during some wave of reform, let us say, elected to legislate into practical working existence some great ideal. They want to do big things; but a short time in office is enough to show the political idealist that he can accomplish nothing, that his reform must be debased and dragged into the dust, so that even if it becomes enacted, it may be not merely of no benefit, but a positive evil. It is scarcely necessary to emphasize this point. It is an accepted commonplace of American politics. So much of life, so large a part of all our social problems, moreover, remains untouched by political and legislative action. This is an old truth too often ignored by those who plan political campaigns upon the most superficial knowledge of human nature.

My own eyes were opened to the limitations of political action when, as an organizer for a political group in New York, I attended by chance a meeting of women laundry-workers who were on strike. We believed we could help these women with a legislative measure and asked their support. "Oh! that stuff!" exclaimed one of these women. "Don't you know that we women might be dead and buried if we waited for politicians and lawmakers to right our wrongs?"

Group 2 Questions

1. The author's approach is both "objective and subjective" because it
 - A. incorporates published data from national studies to support her opinions
 - B. deals impersonally with the very personal subject of sex
 - C. represents careful observation and reflection on her personal experiences
 - D. employs both academic scholarship and active propagandism

2. The author uses "Olympian" in the second paragraph to mean
 - A. Uninvolved
 - B. Championed
 - C. Indifferent
 - D. Supercilious

3. Based on the first paragraph we may infer that the author
 - A. believes that people's natural sexual tendencies can result in harmful social trends
 - B. agrees with the notion that couples should engage in sex only for the purpose of procreation
 - C. feels that sexual education should be taught as early as elementary school
 - D. sees the spread of venereal disease as a major social problem

4. It can be inferred that the author feels that the work done by the "well-meaning ladies and gentlemen" (3rd paragraph) was
 - A. undermined by the short length of time in which these people observed their subjects
 - B. uninformed by the latest theories on sex and hunger
 - C. among the most insightful contributions to social theory in recent memory
 - D. compromised by the fact that the studies were conducted by members of the more affluent sections of society

5. How does the author describe her original views regarding the potential for politics to effect social change?
 - A. Cynical
 - B. Ambivalent
 - C. Detached
 - D. Idealistic

Group 3: [Student names omitted for privacy/anonymity]

The following is a Humanities reading passage.

The evolution of painting, and cubism in particular, shared with science the common characteristic of drawing upon late nineteenth-century achievements, but, in so doing, of intensifying and transforming them. The result was the overthrow of much of the heritage of the nineteenth and earlier centuries. In certain respects cubism brought to an end artistic traditions that had begun as early as the fifteenth century. At the same time, the cubists created a new artistic tradition that is still alive, for they originated attitudes and ideas that spread rapidly to other areas of culture and that to an important degree underlie artistic thought even today. Cubism first posed, in works of the highest artistic quality, many of the fundamental questions that were to preoccupy artists during the first half of the twentieth century; the historical and aesthetic importance of cubism, therefore, renders it worthy of the most serious attention.

Cubism developed with extraordinary rapidity between the years 1907 and 1914. From 1914 until about 1925 there were a great many artists painting in a cubist mode, but this later phase produced relatively few stylistic innovations that had not been anticipated to some extent during the pre-war years. By the mid-1920s, a crisis emerged in cubism as in European art generally, bringing to an end a period of almost twenty years during which cubism had been the predominant force behind an entire artistic generation.

In its beginnings, however, and until about 1923, cubism was an exclusively Parisian phenomenon, and it probably could not have been born elsewhere, for reasons of history, geography, and culture. No other city in the world in the early years of the twentieth century could boast of a comparable century-long history of outstanding artistic activity; and the relatively central location of Paris in western Europe served only to facilitate the migration of the most gifted young artists and writers from Spain, Italy, Germany, Russia, and the Low Countries toward this cultural mecca. Paris offered them not only the challenge of their most gifted contemporaries, but also its great museums; it offered a tradition of moral and intellectual freedom, and an artistic bohemia in which they could live cheaply at the edge of society without suffering the ostracism inflicted by the bourgeoisie in smaller, more conservative, and less cosmopolitan European cities. In retrospect it is not surprising that, by the early part of the twentieth century, Paris contained an astonishing number of young men of genius, whose presence constituted an intellectual ‘critical mass’ that soon produced a series of revolutionary cultural explosions.

Group 3 Questions

1. Which of the following is the most appropriate title for this passage?
 - A. Cubism and Crisis: The Transformation of Art in the 1920s
 - B. A Brief History of Cubism
 - C. The Parisian Art World, 1907-1925
 - D. Nineteenth-Century Art in Europe: from Impressionism to Cubism

2. Which of the following was NOT a reason given by the author that Paris became the center of the artistic world in the early twentieth century?
 - A. Paris was centrally located in Western Europe
 - B. Artists were attracted to Paris because of its many museums
 - C. Parisian society was characterized by greater freedom than other European cities
 - D. The bourgeoisie of Paris were wealthy and provided a vast market for young artists to sell their work

3. In the third paragraph the artist describes Paris as a "cultural mecca" because:
 - A. he means to suggest that Paris was greatly influenced by Middle Eastern trends
 - B. he believes that Paris' importance as a religious center resulted in great amounts of artistic patronage
 - C. he believes that Paris' age-old importance as a center of European art was waning
 - D. he means to suggest that Paris represented a place to which artists flocked from all over Europe

4. The word "ostracism" in the third paragraph most nearly means:
 - A. stigmatization
 - B. gentrification
 - C. calumny
 - D. incrimination

5. Which of the following best summarizes the author's view of the significance of cubism?
 - A. Cubism was a revolutionary movement that transformed art and has continued to influence art up to the present.
 - B. Cubism was a revolutionary movement that transformed art in the early twentieth century but exercised little influence after the movement waned in the 1920s.
 - C. Cubism, though an important movement, never exercised much influence outside of Paris.
 - D. Cubism was a short-lived fad and doesn't deserve serious attention from art critics or art historians.

Group 4: [Student names omitted for privacy/anonymity]

Reading Passage: Social Sciences

This passage is written by an economist at the end of World War I

Before 1870 different parts of the small continent of Europe had specialized in their own products; but, taken as a whole, it was substantially self-subsistent. And its population was adjusted to this state of affairs.

After 1870 there was developed on a large scale an unprecedented situation, and the economic condition of Europe became during the next fifty years unstable and peculiar. The pressure of population on food, which had already been balanced by the accessibility of supplies from America, became for the first time in recorded history definitely reversed. As numbers increased, food was actually easier to secure. Larger proportional returns from an increasing scale of production became true of agriculture as well as industry. With the growth of the European population there were more emigrants on the one hand to till the soil of the new countries and, on the other, more workmen were available in Europe to prepare the industrial products and capital goods which were to maintain the emigrant populations in their new homes, and to build the railways and ships which were to make accessible to Europe food and raw products from distant sources. Up to about 1900 a unit of labor applied to industry yielded year by year a purchasing power over an increasing quantity of food. It is possible that about the year 1900 this process began to be reversed, and a diminishing yield of nature to man's effort was beginning to reassert itself. But the tendency of cereals to rise in real cost was balanced by other improvements; and -- one of many novelties -- the resources of tropical Africa then for the first time came into large employ, and a great traffic in oilseeds began to bring to the table of Europe in a new and cheaper form one of the essential foodstuffs of mankind. In this economic Eldorado, in this economic Utopia, as the earlier economists would have deemed it, most of us were brought up.

That happy age lost sight of a view of the world which filled with deep-seated melancholy the founders of our political economy. Before the eighteenth century mankind entertained no false hopes. To lay the illusions which grew popular at that age's latter end, Malthus disclosed a devil. For half a century all serious economical writings held that devil in clear prospect. For the next half century he was chained up and out of sight. Now perhaps we have loosed him again.

What an extraordinary episode in the economic progress of man that age was which came to an end in August 1914! The greater part of the population, it is true, worked hard and lived at a low standard of comfort, yet were, to all appearances, reasonably contented with this lot. But escape was possible, for any man of capacity or character at all exceeding the average, into the middle and upper classes, for whom life offered, at a low cost and with the least trouble, conveniences, comforts, and amenities beyond the compass of the richest and most powerful monarchs of other ages. The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages; or he could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend. He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality, could dispatch his servant to the neighboring office of a bank for such supply of the precious metals as might seem convenient, and could then proceed abroad to foreign quarters, without knowledge of their religion, language, or customs, bearing coined wealth upon his person, and would consider himself greatly aggrieved and much surprised at the least interference. But, most important of all, he regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable. The projects and politics of militarism and imperialism, of racial and cultural rivalries, of monopolies, restrictions, and exclusion, which were to play the serpent to this paradise, were little more than the amusements of his daily newspaper, and appeared to exercise almost no influence at all on the ordinary course of social and economic life, the internationalisation of which was nearly complete in practice.

Group 4 Questions

1. What is the author trying to convey when he uses the phrase "economic Eldorado" in the second paragraph?
 - A. a situation in which grain costs were under control
 - B. a period of great economic prosperity
 - C. a time in which prosperity was doomed to give way to an economic recession
 - D. a period in which European culture was influenced by Spanish customs

2. Which phrase most nearly describes the subject of the passage?
 - A. A description of the rise of class-consciousness in Europe from 1870 to 1914.
 - B. A description of the economic development of Europe from 1870 to 1914.
 - C. An examination of the life of a typical upper middle-class Londoner in the late nineteenth-century.
 - D. An argument concerning the relation between demographic trends and diet in Europe from 1870 to 1914.

3. Which of the following best describes the view of the inhabitant of London (in the last paragraph) towards his economic surroundings?
 - A. naïve confidence
 - B. harsh condemnation
 - C. increasing wariness
 - D. ambivalence

4. Which of the following words could best be substituted for "capacity" in the last paragraph without changing the author's meaning?
 - A. size
 - B. ability
 - C. weight
 - D. industriousness

5. In the third paragraph the author writes that "Malthus disclosed a devil." Which of the following best restates the author's meaning:
 - A. Malthus derided the Church's interference in economic policy
 - B. Malthus predicted the unification of Europe
 - C. Malthus pointed out that World War I would bring Europe to its senses
 - D. Malthus pointed out that population growth would bring economic hardship

SAT Reading Project (Groups)

Group 5: [Student names omitted for privacy/anonymity]

Group 5 Questions

Hurricanes are tropical storms with winds of over 75 miles per hour. They begin as thunderstorms that form over areas of the ocean where the water temperature exceeds 81 degrees Fahrenheit.

Line (5) The warmth and moisture in these regions provide the hurricane with its tremendous power, which explains why hurricanes quickly weaken when they pass over cool water and dissipate soon after they hit land.

(10) Although hurricanes themselves are only a real concern to coastal areas, they often give birth to tornadoes. These funnel clouds turn inland, leaving swaths of destruction in their wakes. Tornadoes destroy power lines, damage homes and other property, and are responsible for dozens of deaths every year. These tragedies are becoming less common, however, as new weather technology makes it easier to predict the formation of tornadoes
(15) and provide early warning to the areas that may be affected.

1. Using its context in the passage, choose the word that best expresses the meaning of the term “dissipate,” found in the final sentence of the first paragraph.

- (A) intensify
- (B) invert
- (C) disappear
- (D) reverse
- (E) deplete

2. What is the main purpose of the second paragraph?

- (A) To convince the reader that hurricanes pose no threat to inland areas
- (B) To explain in more detail the ideas introduced in the first paragraph
- (C) To explain the most dangerous aspect of hurricanes
- (D) To inform the reader why even people who live far from the ocean should be aware of hurricanes
- (E) To assure the reader that the development of new early warning systems will render hurricanes harmless

SAT Reading Project (Groups)

Group 5 Questions

Line For thousands of years, people believed that owls were more
 (5) like gods than animals. Even in modern times they have been used
 to signify wisdom, magic, and power, but the simple truth is that
 owls are no more divine than other birds. The large, round heads
 and huge, forward-facing eyes that inclined ancient observers to
 believe that owls possessed divine intelligence are simply
 natural adaptations developed to help the predators catch the
 small animals that make up their food supply.

(10) Although owls do not possess any of the mystical powers
 often attributed to them in mythology, they are formidable
 hunters whose skill surpasses that of other birds of prey. Their
 acute senses ensure that owls rarely fail to notice a potential
 meal, and their ability to fly silently means that the
 (15) unfortunate mouse identified by the owl as its next snack never
 realizes it is the object of an attack until too late.

3. In the second sentence of the first paragraph, the word “signify” means
- (A) denote
 - (B) magnify
 - (C) make important
 - (D) insult
 - (E) predict
4. The last sentence of the first paragraph provides
- (A) a summary of the facts presented earlier
 - (B) an example to prove a controversial theory presented earlier
 - (C) an explanation that rebuts a misconception presented earlier
 - (D) an assertion that will be proved later on
 - (E) a view that will be contradicted later on
5. The purpose of the passage as a whole is to
- (A) assure the reader that owls are no different from other birds
 - (B) persuade the reader that owls had an important place in ancient mythology
 - (C) assert that while owls are not magical they are extraordinary in other ways
 - (D) defend an attitude that has recently come under attack
 - (E) discredit an idea that has been gaining in popularity

Group 6: [Student names omitted for privacy/anonymity]

Directions: The passages below are followed by questions based on the content of the passages and the relationship between the two passages. Answer the questions on the basis of what the passage states or implies and on any introductory material provided.

Questions 1–10 refer to the following pair of passages.

These passages, adapted from recently published articles, discuss restoring acknowledged masterpieces of art. The first passage is written by a renowned professor of art history. The second is written by a journalist.

Passage 1

Line Watch reruns of so-called historical dramas on television,
(5) and you will have little difficulty in identifying the decade in
which the show was originally produced. Does anybody really
believe that the long-running 1970s television show Little House
on the Prairie actually provided an accurate glimpse of
nineteenth-century rural life? The actor who played “Pa,” for
(10) instance, lacked a beard, even though men of that period
generally had facial hair. His feathered hair and perfect white
teeth further located the show in the 1970s and detracted from
the authenticity of the show’s intended reconstruction of a
bygone era. No one expects the entertainment industry to
accurately characterize the past for its own sake; shows like
(15) Little House use an imagined past to satisfy a nostalgic urge for
a way of life that never existed. It is only to be expected that
Little House says far more about the time in which it was
created than the time in which it was set, and one should
not get too worked up about it. However, the contemporary trend
(20) of restoring classic works of art raises similar issues in a far
more serious context.

Restoration, as the word itself implies, assumes that one
can recreate an artist’s original intent and product. At best,
restorers’ and museum directors’ aesthetic preferences and
historical theories drive restorations, for it is impossible to
(25) step outside one’s historical context. How can restorers be so
sure that removing a layer of lacquer isn’t merely their
subconscious attempt to refashion an artwork according to
contemporary tastes? What’s “restorative” about that? The
“restored” Sistine Chapel may look “authentic” today, but will it
(30) still look so when aesthetic and historical theories have
changed? Will the newly bright colors heralded as the master’s
work reborn look as embarrassingly anachronistic as Little House?
Surely the best approach with any great work of art is to simply
leave it alone.

(35)
Restorers use the science that informs their task to lend an
unwarranted objectivity to their activities. Science’s
objectivity is beside the point. A scientist can determine the
molecular composition of the substances that make up a painting,
but a scientist cannot determine the original intent and state of
(40) the artist. It will be the art-historian restorer who will use
that objective data to decide which substances to remove. The art

historian will use his at least partially subjective judgment, informed by objective scientific data though it may be, to deem which substances are authentically original. The crux of the problem is that restoration assumes that a contemporary art historian can reproduce the original artwork by recreating the often subconscious decisions of the original artist.

Of course there are occasions in which an artwork must be restored, but only when the work's existence is threatened. But why have so many works of art that are not facing an imminent threat been restored? The reasons, sadly, are more a matter of marketing than conservation. The recent exhortations to clean up Michelangelo's David provide a good example. The Galleria dell'Accademia wanted to spruce David up for his five-hundredth birthday, for they knew that a refurbished David would be catnip for tourists and a windfall for the museum. Not only ticket sales and food concessions but also the inevitable T-shirts, posters, and other cross-marketed products would fill their coffers. Profit, then, and not restoration, is the true cause of the art-restoration craze. Like their Medici forerunners, museum directors' love of art rarely outstrips their love of money.

Passage 2

After years of hand-wringing, the verdict followed hard on the heels of the unveiling: Michelangelo's David was once again revealed to be the most beautiful representation of the male form ever sculpted. The art world was greatly relieved. In fact, David had not been restored, but merely cleaned, which had been the museum director's intent. Free from blemishes and stains, that statue again revealed its essential seamlessness. Lines flowed without interruption; shapes melted imperceptibly into one another.

As is usually the case with restorations, controversy had plagued the project, and understandably so. The sad history of poorly restored masterworks has tainted all restorative efforts and prejudiced much of the art world. But the hysteria that surrounded David's restoration was excessive. Chief among the concerns was a debate over the cleaning method. The original restorer wanted to use "dry" techniques to rub off the dirt. When a rival "wet" technique was chosen, he resigned in a huff, convinced that any application of water to the marble would permanently damage the sculpture. His replacement mixed cellulose, clay, and water and wrapped the creamy ointment in rice paper. This compress was then held against the stone, which lifted grime from the surface. This arrangement ensured that only distilled water had any contact with the sculpture.

The recent change in David's appearance was neither the first nor the most intrusive. Far from it: in 1504, an angry mob expressed their political dissent by throwing stones at the statue. David's left arm was broken into three pieces only 23 years later. In the mid-nineteenth century, David was moved from the Piazza della Signoria courtyard, where he had stood exposed to the elements for over 350 years, to his present home, the

- Galleria dell'Accademia. Well-meaning restorers then gave David an acid bath to remove centuries of accumulated pigeon droppings.
- (95) In 1991, a deranged tourist attacked David's toe with a hammer. Despite this long history, or perhaps because of it, many scholars are loath to make even the slightest change to David's frame.
- (100) It is worth noting, however, that the recent cleaning uncovered a crack on David's left ankle. David's real enemy is not sophisticated, respectful, and painstaking cleaning, but an earthquake—a relatively common event in Italy. Scientists are working now to determine how best to protect David from such an event. In the end, the restoration that so many feared may well
- (105) have given us the impetus to combat a far more dangerous threat to this great sculpture.

GROUP 6 Questions

1. In the context of lines 21–23 of Passage 1, the reference to “subconscious attempt” refers to
 - (A) an actor's inability to portray the time in which he lives
 - (B) a museum director's questionable motives in organizing a restoration project
 - (C) a restorer's tendency to favor the aesthetics of his time
 - (D) an artist's unique ability to recreate the past on canvas
 - (E) a funder's secret motive in donating to a restoration project

2. The word “anachronistic” is used in lines 25–27 to signify
 - (A) something that is very old
 - (B) strong optimism
 - (C) something out of place in its time
 - (D) peers who share a similar agenda
 - (E) color that is bright and flashy in nature

3. The argument that the desire for profit drives restoration projects in lines 59-61 would be most **STRENGTHENED** by which of the following?
 - (A) Museum directors have openly stated that profit was the primary motivating factor in initiating restoration projects
 - (B) No museum restoration project has ever turned a profit
 - (C) Many art pieces are difficult to represent on T-shirts and mugs
 - (D) Most art restoration projects are undertaken on pieces that are on the verge of disintegration, regardless of the popularity of those pieces
 - (E) Museums never display restored works of art to the public

4. According to the author of Passage 2, those who argued that the David should not be cleaned were
 - (A) reasonably prudent
 - (B) unnecessarily redundant
 - (C) overly emotional
 - (D) highly biased
 - (E) unforgivably ignorant

5. The word “tainted” in lines 73-75 most nearly means
- (A) physically putrefied
 - (B) morally corrupted
 - (C) intrinsically weakened
 - (D) inappropriately pigmented
 - (E) adversely colored
6. According to Passage 2, opponents of David’s restoration failed to take into account that
- (A) David has been restored without ill effect several times in the past five hundred years
 - (B) we do not know how Michelangelo would have felt about the restoration
 - (C) water might damage the surface of the sculpture
 - (D) the current David has withstood many and more severe changes since his original creation
 - (E) there is a copy of the original David standing in the Piazza della Signoria courtyard
7. Which of the following most accurately describes the organization of the last paragraph of Passage 2?
- (A) The author provides a counterexample that forces him to alter his argument.
 - (B) The author relates an unforeseen benefit of an event he has supported.
 - (C) The author makes a prediction of future events.
 - (D) The author reiterates the argument against his point of view.
 - (E) The author supports his position with historical evidence.
8. Both passages are primarily concerned with
- (A) the successful cleaning of David
 - (B) the Sistine Chapel’s restoration
 - (C) the inadvisability of cleaning paintings with water
 - (D) the best way to depict the past on television
 - (E) the appropriateness of art restoration
9. The author of Passage 2 would most likely respond to the author of Passage 1’s argument that profit drives restorations (lines 59-61) by doing which of the following?
- (A) Denying that profit ever motivates restoration projects
 - (B) Maintaining that it is possible to accurately recreate the original artwork through restoration
 - (C) Arguing that even if profit motivates restorations, it still ends up preserving and popularizing beautiful and enriching works of art
 - (D) Insisting that scientific research, not profit, motivates restoration projects
 - (E) Refuting the notion that art historians can be objective
10. How would the author of Passage 1 most likely respond to the author of Passage 2’s report that “the recent cleaning uncovered a crack on David’s left ankle” (lines 99-106)?
- (A) The restoration caused the crack.
 - (B) The crack will cut into the museum’s projected profits, as visitors will be disappointed.
 - (C) Since contemporary restorers can’t recreate the original intent of the artist whose work they restore, we can’t be sure that Michelangelo didn’t intend for that crack to be there.
 - (D) Water caused the crack; the “dry” method should have been used after all.
 - (E) Further restoration work should begin immediately, as the artwork’s existence is threatened.

GROUP 1 Answer Key

1. a 2. b 3. c 4. d 5. d

GROUP 2 Answer Key

1. C 2. A 3. A 4. D 5. D

GROUP 3 Answer Key

1B 2D 3D 4A 5A

GROUP 4 Answer Key

1B 2B 3A 4B 5D

GROUP 5 Answer Key

1C 2D 3A 4C 5C

GROUP 6 Answer Key

1C 2C 3A 4C 5E 6D 7B 8E 9C 10E

STRATEGY:

Groups 5 & 6 = Jigsaw Groups (students create a lesson plan)

Groups 1, 2, 3, and 4 = Whole-Group Teachers

Barnes – Peer Teaching and Reading Comprehension, p. 27
SAT PREP: Group Projects

- Goals:
- 1) Students will work collaboratively to become experts on their respective stories.
 - 2) Students will enhance their own reading comprehension skills in preparation for the SAT.
 - 3) Students will align instruction to goals/objectives of the SAT
 - 4) Students will develop learning goals/objectives for the SAT reading passage(s).
 - 5) Students will enhance their own learning by being able to teach their stories to a group.

- Tasks:
- 1) Students will work in teacher-generated groups to develop a lesson with objectives and mastery goals.
 - 2) Students will create a lesson plan and will measure student success.
 - 3) Students will teach each other and will learn from each other.
 - 4) Students will reflect via videotape and teachers will reflect via videotape.

Groups: Groups 1-4 will read their stories, create a lesson plan (with lesson goals/activities/lecture/presentation/questions), and teach their story to the class as a whole. Each member will be responsible for a task (or 2)

 Groups 5-6 will read their stories, create a lesson plan (with lesson goals/activities/lecture/presentation/questions), but will divide themselves among groups of 3-4 to teach small groups on an individual basis.

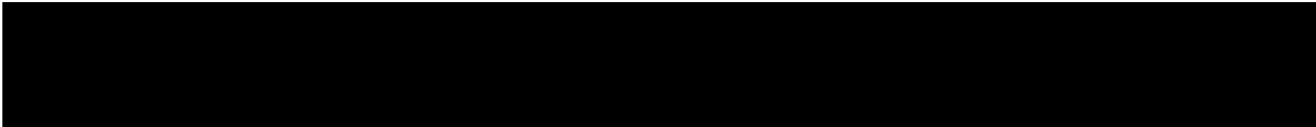
Lessons:

- 1) Students must read, understand, and verify (to the teacher) that they know the main idea and SAT-based questions and answers.
- 2) Students must then develop SWBAT objectives about what learners will learn. This means, students will be able to:
A. comprehend B. answer C. identify D. compare/contrast E. define, etc.
- 3) Students will create tasks/activities to help students DEMONSTRATE their comprehension. These include:
A. vocabulary list(s) B. Practice multiple-choice questions (CPS) C. Practice short-answer
D. some sort of interactive activity
E. Test (the 5 MC questions you had to answer for me, plus 5 of your own MC questions and a writing component).

Disclaimer: I plan to use you on a private videotape for a grant/research project I am conducting. You will be attributed. I will pass out permission forms shortly.

Name: _____ Date: _____ Course: _____

Survey for Peer Teaching Unit



1 = completely disagree 3 = neutral 5 = completely agree

Statement	1	2	3	4	5	N/A
1. Completing this activity was easy.						
2. Completing this activity was more fun than normal class activities.						
3. Completing this activity helped me better understand the story I was teaching.						
4. While completing this activity, my group worked equally.						
5. While completing this activity, I was able to start discussion and answer questions from my group members with confidence.						
6. While completing this activity, I was able to start discussion and answer questions from students NOT IN MY GROUP with confidence.						
7. While completing this activity, I felt more comfortable asking for assistance from my group members than I would about asking for assistance from my teacher.						
8. While completing this activity, I used my time wisely.						
9. While completing this activity, I felt I learned more than I would if we did this activity as a whole-class.						
10. While completing this activity, I felt that I taught effectively.						
Statement	1	2	3	4	5	N/A
11. Learning from the other groups was more fun than normal class activities.						
12. I learned more from the groups that broke us up into small groups.						
13. The groups that taught me seemed to share the work evenly.						
14. The groups that taught me were able to answer my questions and/or the questions of my peers efficiently.						
15. I felt comfortable asking questions to the groups that taught me.						
16. I felt more comfortable asking questions when I was taught by one peer than I did asking questions to the whole group.						
17. I felt more comfortable asking questions to my peers than I did asking questions to my teacher.						
18. I paid complete attention to my peers while they were teaching.						
19. I feel comfortable taking a test on the material my peers taught me.						
20. I feel more comfortable taking a test on the material my peers taught me than I would taking a test my teacher taught me.						

1 = completely disagree
3 = neutral
5 = completely agree

Name: _____ Date: _____ Course: _____

Open-Ended Response to Peer Teaching Unit



1. How well do you think this activity went?

2. What should be done next time to make this unit work better?

3. What did you like better: being taught by the whole-group at once, or being taught by individual students in small groups? Why?

4. What was the A) easiest and B) most difficult part of this assignment? Explain why.

5. How do you feel about learning from your peers as compared to learning from your teacher(s)? Explain yourself thoroughly.

Barnes – Peer Teaching and Reading Comprehension, p. 30
Rubric for Written Response Items

Student Name: _____

Group Members Evaluating: Write on line below:

Criteria	Points Possible	Points Awarded	Comments for Improvement
Student uses proper GUM (grammar, usage, mechanics)	25		
Student demonstrates understanding of the text by being correct in answer.	25		
Student uses the text to support answer.	25		
Student uses ample description.	25		

Student Name: _____

Other Group Members →

Rubric for Peer Teaching Groups

Criteria	Points Possible	Points Awarded
Group creates appropriate (i.e., on-topic and aligned to objectives) prereading task, 5-word or longer vocabulary list with definitions, statement of objectives, written task, and objective assessment.	20	
Group uses proper grammar, usage, and mechanics (GUM) in creating each task.	20	
Group stays on-task as determined by teacher monitoring. [Can have points deducted].	10	
Group works cooperatively. [Can have points deducted]	10	
Group keeps students engaged during prereading, reading, and discussion. This involves getting students to ask questions, answer question, and involves groups being adequately prepared.	10	
Group evaluates written task while other students are taking assessment.	10	
Group keeps materials organized and submitted as directed.	10	
Group keeps volume at a minimum during preparation time.	10	

Total →

Comments:

Peer Teaching Unit—Whole-Groups

Over the past few weeks, we have read various stories, completed Active Reading Assignments, created projects, had class discussion, and took tests on those texts. Now, it is YOUR TURN to take a story, create a teaching unit, generate assignments, and teach your class!

PROCEDURES:

- 1) In groups of 3-5, you will be assigned texts in which you will become experts.
- 2) In your groups, you will read your text and make sure you all understand it. You need to understand the main idea of the entire article, the main points of each paragraph, the author's purpose, etc.
- 3) You will write down your tasks neatly and professionally.
- 4) You will then create a prereading task that involves the class writing down at least two answers. This task will be in the form of discussion questions related to the text.
- 5) Your group will then take the text and come up with a vocabulary list of 5-10 words and definitions.
- 6) Next, your group will devise discussion questions and talking points to use while you're guiding the class through the reading. You will need to have talking points, discussion questions, and questions to reinforce the main idea. As a group, you will come up with questions and talking points together, and will ask/talk while you are having the class read the text you have demonstrated your expertise in. In addition, you will need to predict and be prepared for questions the class may ask you. You will write these out and have copies for each member of your group.
- 7) Your group will devise a writing assessment in which students will evaluate, judge, or explain their opinion on something in the text. Your assignment must be specific, must be answerable from reading the text, and must be something that cannot simply be "found" in the text.
- 8) Your group will devise a 10-question multiple-choice quiz in which you will have students analyze the text and focus on the main idea, theme, etc. You will use examples from our practice EOC assignments. On the back of the quiz, you will provide me an answer key.
- 9) Your group will teach the lesson. Each student will have the article, and I will project the article using the document camera so that you can have access to the InterWrite Board for highlighting/discussion purposes.
- 10) Your group will review the main idea and any important things you think students need to know. You MAY NOT go over the quiz you will give them, but you can discuss topics that will be on the quiz.
- 11) Your group will assign the writing task to be completed during class while your group provides assistance. If students do not finish, they will complete it for homework.
- 12) While the students are taking the quiz (composed of your multiple-choice questions and my questions), your group will be evaluating the writing tasks that have been turned in for homework. Your group may divide the writings up, but at least two (2) sets of eyes must grade each writing task.
- 13) At the end, everybody will evaluate this assignment.

Peer Teaching Unit—Jigsaw-Groups

Over the past few weeks, we have read various stories, completed Active Reading Assignments, created projects, had class discussion, and took tests on those texts. Now, it is YOUR TURN to take a story, create a teaching unit, generate assignments, and teach your class!

PROCEDURES:

- 1) In groups of 3-5, you will be assigned texts in which you will become experts.
- 2) In your groups, you will read your text and make sure you all understand it. You need to understand the main idea of the entire article, the main points of each paragraph, the author's purpose, etc. Each person needs a written copy and clear understanding of each of these topics!
- 3) You will write down your tasks neatly and professionally. Each person will need a copy of everything!
- 4) You will then create a prereading task that involves the class writing down at least two answers. This task will be in the form of discussion questions related to the text.
- 5) Your group will then take the text and come up with a vocabulary list of 5-10 words and definitions.
- 6) Next, your group will devise discussion questions and talking points to use while you're guiding the class through the reading. You will need to have talking points, discussion questions, and questions to reinforce the main idea. You will write these out and have copies for each member of your group.
- 7) Your group will devise a writing assessment in which students will evaluate, judge, or explain their opinion on something in the text. Your assignment must be specific, must be answerable from reading the text, and must be something that cannot simply be "found" in the text.
- 8) Your group will devise a 10-question multiple-choice quiz in which you will have students analyze the text and focus on the main idea, theme, etc. You will use examples from our practice EOC assignments. On the back of the quiz, you will provide me an answer key.
- 9) Each individual member of your group will teach the lesson to a new, small group of students. Each student will have the article. In your new groups that I will design, each of you will use your questions and talking points, and each of you will ask/talk while you are having your new group read the text you have demonstrated your expertise in. In addition, you will need to predict and be prepared for questions that your new group may ask you.
- 10) You will review the main idea and any important things you think students need to know. You MAY NOT go over the quiz you will give them, but you can discuss topics that will be on the quiz.
- 11) You will assign the writing task to be completed during class while you provide assistance. If students do not finish, they will complete it for homework.
- 12) While the students are taking the quiz (composed of your multiple-choice questions and my questions), your first group (the one you created all of this with) will be evaluating the writing tasks that have been turned in for homework. Your group may divide the writings up, but at least two (2) sets of eyes must grade each writing task.
- 13) At the end, everybody will evaluate this assignment.

At the beginning of the unit, I will divide the class into small groups. We will pretend there are 20 students. Therefore, the FIRST GROUPS will look like this:

GROUP A	GROUP B	GROUP C	GROUP D	GROUP E
A1	B1	C1	D1	E1
A2	B2	C2	D2	E2
A3	B3	C3	D3	E3
A4	B4	C4	D4	E4

Pretend that you are in GROUP A. You will create your lesson with Group A.

Person A1 will teach the lesson to GROUP B.

Person A2 will teach the lesson to GROUP C.

Person A3 will teach the lesson to GROUP D.

Person A4 will teach the lesson to GROUP E.

This way, everybody in your group (GROUP A) has the same lesson planned, because you created it together. However, instead of you 4 taking on the rest of the class, you will divide the class up and teach them on a more individual basis?

I will have color coded notecards to help you as well!

On the Final Test

- 1) You will use the texts on the final test.
- 2) You will identify which individual teachers taught you, and you will identify which texts they taught you.

Student's Name: _____

Date: _____

FINAL INDIVIDUAL SCORESHEET

Type of Grade	Assignment	Score
Homework (1)	Written Response	
Homework (1)	Open-Ended Response	
Classwork (1)	5-point Survey	
Classwork (2-3)	Grade for Teaching Unit	
Test (1)	Grade for Teaching Unit	
Quiz (multiple)	Scores on each group's quizzes	
Test (1)	Current Events + Teacher-Made Test	